

<400> 4810

Met Ala Met Gln Met Gln Leu Glu Ala Asn Ala Asp Thr Ser Val Glu
 1 5 10 15
 Glu Glu Ser Phe Gly Pro Gln Pro Ile Ser Arg Leu Glu Gln Cys Gly
 20 25 30
 Ile Asn Ala Asn Asp Val Lys Lys Leu Glu Glu Ala Gly Phe His Thr
 35 40 45
 Val Glu Ala Val Ala Tyr Ala Pro Lys Lys Glu Leu Ile Asn Ile Lys
 50 55 60
 Gly Ile Ser Glu Ala Lys Ala Asp Lys Ile Leu Thr Glu Ser Arg Ser
 65 70 75 80
 Val Ala Arg Leu Glu Cys Asn Ser Val Ile Leu Val Tyr Cys Thr Leu
 85 90 95
 Arg Leu Ser Gly Ser Ser Asp Ser Pro Ala Ser Ala Ser Arg Val Val
 100 105 110
 Gly Thr Thr Gly Gly Ile Glu Thr Gly Ser Ile Thr Glu Met Phe Gly
 115 120 125
 Glu Phe Arg Thr Gly Lys Thr Gln Ile Cys His Thr Leu Ala Val Thr
 130 135 140
 Cys Gln Leu Pro Ile Asp Arg Gly Gly Gly Glu Gly Lys Ala Met Tyr
 145 150 155 160
 Ile Asp Thr Glu Gly Thr Phe Arg Pro Glu Arg Leu Leu Ala Val Ala
 165 170 175
 Glu Arg Tyr Gly Leu Ser Gly Ser Asp Val Leu Asp Asn Val Ala Tyr
 180 185 190
 Ala Arg Ala Phe Asn Thr Asp His Gln Thr Gln Leu Leu Tyr Gln Ala
 195 200 205
 Ser Ala Met Met Val Glu Ser Arg Tyr Ala Leu Leu Ile Val Asp Ser
 210 215 220
 Ala Thr Ala Leu Tyr Arg Thr Asp Tyr Ser Gly Arg Gly Glu Leu Ser
 225 230 235 240
 Ala Arg Gln Met His Leu Ala Arg Phe Leu Arg Met Leu Leu Arg Leu
 245 250 255
 Ala Asp Glu Phe Gly Val Ala Val Val Ile Thr Asn Gln Val Val Ala
 260 265 270

Gln	Val	Asp	Gly	Ala	Ala	Met	Phe	Ala	Ala	Asp	Pro	Lys	Lys	Pro	Ile
275				280				285							
Gly	Gly	Asn	Ile	Ile	Ala	His	Ala	Ser	Thr	Thr	Arg	Leu	Tyr	Leu	Arg
290				295				300							
Lys	Gly	Arg	Gly	Glu	Thr	Arg	Ile	Cys	Lys	Ile	Tyr	Asp	Ser	Pro	Cys
305				310				315				320			
Leu	Pro	Glu	Ala	Glu	Ala	Met	Phe	Ala	Ile	Asn	Ala	Asp	Gly	Val	Gly
325				330				335							
Asp	Ala	Lys	Asp												
340															

<210> 4811
<211> 698
<212> PRT
<213> Homo sapiens

<400> 4811

Met	Glu	Thr	Arg	Gly	Leu	Ala	Asp	Ser	Gly	Gln	Gly	Ser	Phe	Thr	Gly
1					5				10					15	
Gln	Gly	Ile	Ala	Arg	Phe	Gly	Arg	Ile	Gln	Lys	Lys	Ser	Gln	Pro	Glu
				20				25					30		
Lys	Val	Val	Arg	Ala	Ala	Ser	Arg	Gly	Arg	Pro	Leu	Ile	Gly	Trp	Thr
			35				40					45			
Gln	Trp	Cys	Ala	Glu	Asp	Gly	Gly	Asp	Glu	Ser	Glu	Met	Ala	Leu	Ala
	50					55				60					
Gly	Ser	Pro	Gly	Cys	Ser	Ser	Gly	Pro	Gln	Gly	Arg	Leu	Ser	Arg	Leu
65					70				75					80	
Ile	Phe	Leu	Leu	Arg	Arg	Trp	Ala	Ala	Arg	His	Val	His	His	Gln	Asp
				85					90				95		
Gln	Gly	Pro	Asp	Ser	Phe	Pro	Asp	Arg	Phe	Arg	Gly	Ala	Glu	Leu	Lys
			100					105				110			
Glu	Val	Ser	Ser	Gln	Glu	Ser	Asn	Ala	Gln	Ala	Asn	Val	Gly	Ser	Gln
		115					120				125				
Glu	Pro	Ala	Asp	Arg	Gly	Arg	Ser	Ala	Trp	Pro	Leu	Ala	Lys	Cys	Asn
130					135				140						

Thr Asn Thr Ser Asn Asn Thr Glu Glu Glu Lys Lys Thr Lys Lys Lys
 145 150 155 160
 Asp Ala Ile Val Val Asp Pro Ser Ser Asn Leu Tyr Tyr Arg Trp Leu
 165 170 175
 Thr Ala Ile Ala Leu Pro Val Phe His Asn Trp Tyr Leu Leu Ile Cys
 180 185 190
 Arg Ala Cys Phe Asp Glu Leu Gln Ser Glu Tyr Leu Met Leu Trp Leu
 195 200 205
 Val Leu Asp Tyr Ser Ala Asp Val Leu Tyr Val Leu Asp Val Leu Val
 210 215 220
 Arg Ala Arg Thr Gly Phe Leu Glu Gln Gly Leu Met Val Ser Asp Thr
 225 230 235 240
 Asn Arg Leu Trp Gln His Tyr Lys Thr Thr Thr Gln Phe Lys Leu Asp
 245 250 255
 Val Leu Ser Leu Val Pro Thr Asp Leu Ala Tyr Leu Lys Val Gly Thr
 260 265 270
 Asn Tyr Pro Glu Val Arg Phe Asn Arg Leu Leu Lys Phe Ser Arg Leu
 275 280 285
 Phe Glu Phe Phe Asp Arg Thr Glu Thr Arg Thr Asn Tyr Pro Asn Met
 290 295 300
 Phe Arg Ile Gly Asn Leu Val Leu Tyr Ile Leu Ile Ile Ile His Trp
 305 310 315 320
 Asn Ala Cys Ile Tyr Phe Ala Ile Ser Lys Phe Ile Gly Phe Gly Thr
 325 330 335
 Asp Ser Trp Val Tyr Pro Asn Ile Ser Ile Pro Glu His Gly Arg Leu
 340 345 350
 Ser Arg Lys Tyr Ile Tyr Ser Leu Tyr Trp Ser Thr Leu Thr Leu Thr
 355 360 365
 Thr Ile Gly Glu Thr Pro Pro Pro Val Lys Asp Glu Glu Tyr Leu Phe
 370 375 380
 Val Val Val Asp Phe Leu Val Gly Val Leu Ile Phe Ala Thr Ile Val
 385 390 395 400
 Gly Asn Val Gly Ser Met Ile Ser Asn Met Asn Ala Ser Arg Ala Glu
 405 410 415
 Phe Gln Ala Lys Ile Asp Ser Ile Lys Gln Tyr Met Gln Phe Arg Lys
 420 425 430

Val Thr Lys Asp Leu Glu Thr Arg Val Ile Arg Trp Phe Asp Tyr Leu
 435 440 445
 Trp Ala Asn Lys Lys Thr Val Asp Glu Lys Glu Val Leu Lys Ser Leu
 450 455 460
 Pro Asp Lys Leu Lys Ala Glu Ile Ala Ile Asn Val His Leu Asp Thr
 465 470 475 480
 Leu Lys Lys Val Arg Ile Phe Gln Asp Cys Glu Ala Gly Leu Leu Val
 485 490 495
 Glu Leu Val Leu Lys Leu Arg Pro Thr Val Phe Ser Pro Gly Asp Tyr
 500 505 510
 Ile Cys Lys Lys Gly Asp Ile Gly Lys Glu Met Tyr Ile Ile Asn Glu
 515 520 525
 Gly Lys Leu Ala Val Val Ala Asp Asp Gly Val Thr Gln Phe Val Val
 530 535 540
 Leu Ser Asp Gly Ser Tyr Phe Gly Glu Ile Ser Ile Leu Asn Ile Lys
 545 550 555 560
 Gly Ser Lys Ser Gly Asn Arg Arg Thr Ala Asn Ile Arg Ser Ile Gly
 565 570 575
 Tyr Ser Asp Leu Phe Cys Leu Ser Lys Asp Asp Leu Met Glu Ala Leu
 580 585 590
 Thr Glu Tyr Pro Glu Ala Lys Lys Ala Leu Glu Glu Lys Gly Arg Gln
 595 600 605
 Ile Leu Met Lys Asp Asn Leu Ile Asp Glu Glu Leu Ala Arg Ala Gly
 610 615 620
 Ala Asp Pro Lys Asp Leu Glu Glu Lys Val Glu Gln Leu Gly Ser Ser
 625 630 635 640
 Leu Asp Thr Leu Gln Thr Arg Phe Ala Arg Leu Leu Ala Glu Tyr Asn
 645 650 655
 Ala Thr Gln Met Lys Met Lys Gln Arg Leu Ser Gln Leu Glu Ser Gln
 660 665 670
 Val Lys Gly Gly Gly Asp Lys Pro Leu Ala Asp Gly Glu Val Pro Gly
 675 680 685
 Asp Ala Thr Lys Thr Glu Asp Lys Gln Gln
 690 695

<210> 4812

<211> 544

<212> PRT

<213> Homo sapiens

<400> 4812

Met Asp Gly Leu Asp Asn Arg Gly Glu Ile Val Val Ile Gly Ala Thr
 1 5 10 15
 Asn Arg Leu Asp Ser Ile Asp Pro Ala Leu Arg Arg Pro Gly Arg Phe
 20 25 30
 Asp Arg Glu Phe Leu Phe Asn Leu Pro Asp Gln Lys Ala Arg Lys His
 35 40 45
 Ile Leu Gln Ile His Thr Arg Asp Trp Asn Pro Lys Leu Ser Asp Ala
 50 55 60
 Phe Leu Gly Glu Leu Ala Glu Lys Cys Val Gly Tyr Cys Gly Ala Asp
 65 70 75 80
 Ile Lys Ala Leu Cys Thr Glu Ala Ala Leu Ile Ala Leu Arg Arg Arg
 85 90 95
 Tyr Pro Gln Ile Tyr Ala Ser Ser His Lys Leu Gln Leu Asp Val Ser
 100 105 110
 Ser Ile Val Leu Ser Ala Gln Asp Phe Tyr His Ala Met Gln Asn Ile
 115 120 125
 Val Pro Ala Ser Gln Arg Ala Val Met Ser Ser Gly His Ala Leu Ser
 130 135 140
 Pro Ile Ile Arg Pro Leu Leu Glu Arg Ser Phe Asn Asn Ile Leu Ala
 145 150 155 160
 Val Leu Gln Lys Val Phe Pro His Ala Glu Ile Ser Gln Ser Asp Lys
 165 170 175
 Lys Glu Asp Ile Glu Thr Leu Ile Leu Glu Asp Ser Glu Asp Glu Asn
 180 185 190
 Ala Leu Ser Ile Phe Glu Thr Asn Cys His Ser Gly Ser Pro Lys Lys
 195 200 205
 Gln Ser Ser Ser Ala Ala Ile His Lys Pro Tyr Leu His Phe Thr Met
 210 215 220
 Ser Pro Tyr His Gln Pro Thr Ser Tyr Arg Pro Arg Leu Leu Leu Ser

225	230	235	240
Gly Glu Arg Gly Ser Gly Gln Thr Ser His Leu Ala Pro Ala Leu Leu			
	245	250	255
His Thr Leu Glu Arg Phe Ser Val His Arg Leu Asp Leu Pro Ala Leu			
	260	265	270
Tyr Ser Val Ser Ala Lys Thr Pro Glu Glu Ser Cys Ala Gln Ile Phe			
	275	280	285
Arg Glu Ala Arg Arg Thr Val Pro Ser Ile Val Tyr Met Pro His Ile			
	290	295	300
Gly Asp Trp Trp Glu Ala Val Ser Glu Thr Val Arg Ala Thr Phe Leu			
305	310	315	320
Thr Leu Leu Gln Asp Ile Pro Ser Phe Ser Pro Ile Phe Leu Leu Ser			
	325	330	335
Thr Ser Glu Thr Met Tyr Ser Glu Leu Pro Glu Glu Val Lys Cys Ile			
	340	345	350
Phe Arg Ile Gln Tyr Glu Glu Val Leu Tyr Ile Gln Arg Pro Ile Glu			
	355	360	365
Glu Asp Arg Arg Lys Phe Phe Gln Glu Leu Ile Leu Asn Gln Ala Ser			
	370	375	380
Met Ala Pro Pro Arg Arg Lys His Ala Ala Leu Cys Ala Met Glu Val			
385	390	395	400
Leu Pro Leu Ala Leu Pro Ser Pro Pro Arg Gln Leu Ser Glu Ser Glu			
	405	410	415
Lys Ser Arg Met Glu Asp Gln Glu Glu Asn Thr Leu Arg Glu Leu Arg			
	420	425	430
Leu Phe Leu Arg Asp Val Thr Lys Arg Leu Ala Thr Asp Lys Arg Phe			
	435	440	445
Asn Ile Phe Ser Lys Pro Val Asp Ile Glu Glu Val Ser Asp Tyr Leu			
	450	455	460
Glu Val Ile Lys Glu Pro Met Asp Leu Ser Thr Val Ile Thr Lys Ile			
465	470	475	480
Asp Lys His Asn Tyr Leu Thr Ala Lys Asp Phe Leu Lys Asp Ile Asp			
	485	490	495
Leu Ile Cys Ser Asn Ala Leu Glu Tyr Asn Pro Asp Lys Asp Pro Gly			
	500	505	510
Asp Lys Ile Ile Arg His Arg Ala Cys Thr Leu Lys Asp Thr Ala His			

515	520	525
Ala Ile Ile Ala Ala Glu Leu Asp Pro Glu Phe Asn Lys Leu Cys Glu		
530	535	540

<210> 4813

<211> 334

<212> PRT

<213> Homo sapiens

<400> 4813

Met Val Gly Gln Gly Cys Ser Leu Glu Pro Arg Leu Asp Leu Arg Pro			
1	5	10	15
Leu Gly Asn Pro Arg Ser Lys Gln Ser Arg His Gln Ser Trp Val Trp			
20	25	30	
Glu Arg Gln Glu Gly Glu Arg Asn Gly Gly Ser Lys Glu Gly Lys Glu			
35	40	45	
Gly Gly Arg Gly Gly Ser Lys Thr Val Ile Pro Ile Pro Ile Ser Asp			
50	55	60	
Leu Glu Leu Ala Ser Thr Pro Val His Pro Cys Arg Gly Gly Pro Ser			
65	70	75	80
Pro Gln Leu Leu Pro Arg Glu Tyr Gly Gly Gly Val Gly Ile Leu Trp			
85	90	95	
Leu Ser Ser Leu Pro Leu Leu Cys Arg Leu Met Leu Gly Phe Met Gly			
100	105	110	
Val Thr Ala Leu Leu Ser Met Trp Ile Ser Asn Thr Ala Thr Thr Ala			
115	120	125	
Met Met Val Pro Ile Val Glu Ala Ile Leu Gln Gln Met Glu Ala Thr			
130	135	140	
Ser Ala Ala Thr Glu Ala Gly Leu Glu Leu Val Asp Lys Gly Lys Ala			
145	150	155	160
Lys Glu Leu Pro Gly Ser Gln Val Ile Phe Glu Gly Pro Thr Leu Gly			
165	170	175	
Gln Gln Glu Asp Gln Glu Arg Lys Arg Leu Cys Lys Ala Met Thr Leu			
180	185	190	
Cys Ile Cys Tyr Ala Ala Ser Ile Gly Gly Thr Ala Thr Leu Thr Gly			

195	200	205
Thr Gly Pro Asn Val Val Leu Leu Gly Gln Met Asn Glu Leu Phe Pro		
210	215	220
Asp Ser Lys Asp Leu Val Asn Phe Ala Ser Trp Phe Ala Phe Ala Phe		
225	230	235
Pro Asn Met Leu Val Met Leu Leu Phe Ala Trp Leu Trp Leu Gln Phe		
245	250	255
Val Tyr Met Arg Phe Asn Phe Lys Lys Ser Trp Gly Cys Gly Leu Glu		
260	265	270
Ser Lys Lys Asn Glu Lys Ala Ala Leu Lys Val Leu Gln Glu Glu Tyr		
275	280	285
Arg Lys Leu Gly Pro Leu Ser Phe Ala Glu Ile Asn Val Leu Ile Cys		
290	295	300
Phe Phe Leu Leu Val Ile Leu Trp Phe Ser Arg Asp Pro Gly Phe Met		
305	310	315
Pro Gly Trp Leu Thr Val Ala Trp Val Glu Gly Glu Thr Lys		
325	330	

<210> 4814

<211> 451

<212> PRT

<213> Homo sapiens

<400> 4814

Met Asn Lys Ala Pro Gln Ser Thr Gly Pro Pro Pro Ala Pro Ser Pro
1 5 10 15
Gly Leu Pro Gln Pro Ala Phe Pro Pro Gly Gln Thr Ala Pro Val Val
20 25 30
Phe Ser Thr Pro Gln Ala Thr Gln Met Asn Thr Pro Ser Gln Pro Arg
35 40 45
Gln His Phe Tyr Pro Ser Arg Ala Gln Pro Pro Ser Ser Ala Ala Ser
50 55 60
Arg Val Gln Ser Ala Ala Pro Ala Arg Pro Gly Pro Ala Ala Leu Pro
65 70 75 80
Pro Val Ser Pro Leu Lys Ala Ala Leu Ser Glu Glu Glu Leu Glu Lys

	85	90	95
Lys Ser Lys Ala Ile Ile Glu Glu Tyr Leu His Leu Asn Asp Met Lys			
100	105	110	
Glu Ala Val Gln Cys Val Gln Glu Leu Ala Ser Pro Ser Leu Leu Phe			
115	120	125	
Ile Phe Val Arg His Gly Val Glu Ser Thr Leu Glu Arg Ser Ala Ile			
130	135	140	
Ala Arg Glu His Met Gly Gln Leu Leu His Gln Leu Leu Cys Ala Gly			
145	150	155	160
His Leu Ser Thr Ala Gln Tyr Tyr Gln Gly Leu Tyr Glu Ile Leu Glu			
165	170	175	
Leu Ala Glu Asp Met Glu Ile Asp Ile Pro His Val Trp Leu Tyr Leu			
180	185	190	
Ala Glu Leu Val Thr Pro Ile Leu Gln Glu Gly Gly Val Pro Met Gly			
195	200	205	
Glu Leu Phe Arg Glu Ile Thr Lys Pro Leu Arg Pro Leu Gly Lys Ala			
210	215	220	
Ala Ser Leu Leu Leu Glu Ile Leu Gly Leu Leu Cys Lys Ser Met Gly			
225	230	235	240
Pro Lys Lys Val Gly Thr Leu Trp Arg Glu Ala Gly Leu Ser Trp Lys			
245	250	255	
Glu Phe Leu Pro Glu Gly Gln Asp Ile Gly Ala Phe Val Ala Glu Gln			
260	265	270	
Lys Val Glu Tyr Thr Leu Gly Glu Glu Ser Glu Ala Pro Gly Gln Arg			
275	280	285	
Ala Leu Pro Ser Glu Glu Leu Asn Arg Gln Leu Glu Lys Leu Leu Lys			
290	295	300	
Glu Gly Ser Ser Asn Gln Arg Val Phe Asp Trp Ile Glu Ala Asn Leu			
305	310	315	320
Ser Glu Gln Gln Ile Val Ser Asn Thr Leu Val Arg Ala Leu Met Thr			
325	330	335	
Ala Val Cys Tyr Ser Ala Ile Ile Phe Glu Thr Pro Leu Arg Val Asp			
340	345	350	
Val Ala Val Leu Lys Ala Arg Ala Lys Leu Leu Gln Lys Tyr Leu Cys			
355	360	365	
Asp Glu Gln Lys Glu Leu Gln Ala Leu Tyr Ala Leu Gln Ala Leu Val			

370 375 380
 Val Thr Leu Glu Gln Pro Pro Asn Leu Leu Arg Met Phe Phe Asp Ala
 385 390 395 400
 Leu Tyr Asp Glu Asp Val Val Lys Glu Asp Ala Phe Tyr Ser Trp Glu
 405 410 415
 Ser Ser Lys Asp Pro Ala Glu Gln Gln Gly Lys Gly Val Ala Leu Lys
 420 425 430
 Ser Val Thr Ala Phe Phe Lys Trp Leu Arg Glu Ala Glu Glu Glu Ser
 435 440 445
 Asp His Asn
 450

<210> 4815

<211> 694

<212> PRT

<213> Homo sapiens

<400> 4815

Met Glu Arg Ala Met Glu Gln Leu Asn Arg Leu Thr Arg Ser Leu Arg
 1 5 10 15
 Arg Ala Arg Thr Val Glu Leu Pro Glu Asp Asn Glu Thr Ala Val Tyr
 20 25 30
 Thr Leu Met Pro Met Val Met Ala Asp Gln His Arg Ser Val Ser Glu
 35 40 45
 Leu Leu Ser Asn Ser Lys Phe Asp Val Asn Tyr Ala Phe Gly Arg Val
 50 55 60
 Lys Arg Ser Leu Leu His Ile Ala Ala Asn Cys Gly Ser Val Glu Cys
 65 70 75 80
 Leu Val Leu Leu Leu Lys Lys Gly Ala Asn Pro Asn Tyr Gln Asp Ile
 85 90 95
 Ser Gly Cys Thr Pro Leu His Leu Ala Ala Arg Asn Gly Gln Lys Lys
 100 105 110
 Cys Met Ser Lys Leu Leu Glu Tyr Ser Ala Asp Val Asn Ile Cys Asn
 115 120 125
 Asn Glu Gly Pro Thr Ala Ile His Trp Leu Ala Val Asn Gly Arg Thr

130	135	140	
Glu Leu Leu His Asp Leu Val Gln His Val Ser Asp Val Asp Val Glu			
145	150	155	160
Asp Ala Met Gly Gln Thr Ala Leu His Val Ala Cys Gln Asn Gly His			
	165	170	175
Lys Thr Thr Val Gln Cys Leu Leu Asp Ser Gly Ala Asp Ile Asn Arg			
	180	185	190
Pro Asn Val Ser Gly Ala Thr Pro Leu Tyr Phe Ala Cys Ser His Gly			
	195	200	205
Gln Arg Asp Thr Ala Gln Ile Leu Leu Leu Arg Gly Ala Lys Tyr Leu			
	210	215	220
Pro Asp Lys Asn Gly Val Thr Pro Leu Asp Leu Cys Val Gln Gly Gly			
225	230	235	240
Tyr Gly Glu Thr Cys Glu Val Leu Ile Gln Tyr His Pro Arg Leu Phe			
	245	250	255
Gln Thr Ile Ile Gln Met Thr Gln Asn Glu Asp Leu Arg Glu Asn Met			
	260	265	270
Leu Arg Gln Val Leu Glu His Leu Ser Gln Gln Ser Glu Ser Gln Tyr			
	275	280	285
Leu Lys Ile Leu Thr Ser Leu Ala Glu Val Ser Thr Thr Asn Gly His			
	290	295	300
Lys Leu Leu Ser Leu Ser Ser Asn Tyr Asp Ala Gln Met Lys Ser Leu			
305	310	315	320
Leu Arg Ile Val Arg Met Phe Cys His Val Phe Arg Ile Gly Pro Ser			
	325	330	335
Ser Pro Ser Asn Gly Ile Asp Met Gly Tyr Asn Gly Asn Lys Thr Pro			
	340	345	350
Arg Ser Gln Val Phe Lys Pro Leu Glu Leu Leu Trp His Ser Leu Asp			
	355	360	365
Glu Trp Leu Val Leu Ile Ala Thr Glu Leu Met Lys Asn Lys Arg Asp			
	370	375	380
Ser Thr Glu Ile Thr Ser Ile Leu Leu Lys Gln Lys Gly Gln Asp Gln			
385	390	395	400
Asp Ala Ala Ser Ile Pro Pro Phe Glu Pro Pro Gly Pro Gly Ser Tyr			
	405	410	415
Glu Asn Leu Ser Thr Gly Thr Arg Glu Ser Lys Pro Asp Ala Leu Ala			

420	425	430
Gly Arg Gln Glu Ala Ser Ala Asp Cys Gln Asp Val Ile Ser Met Thr		
435	440	445
Ala Asn Arg Leu Ser Ala Val Ile Gln Ala Phe Tyr Met Cys Cys Ser		
450	455	460
Cys Gln Met Pro Pro Gly Met Thr Ser Pro Arg Phe Ile Glu Phe Val		
465	470	475
Cys Lys His Asp Glu Val Leu Lys Cys Phe Val Asn Arg Asn Pro Lys		
485	490	495
Ile Ile Phe Asp His Phe His Phe Leu Leu Glu Cys Pro Glu Leu Met		
500	505	510
Ser Arg Phe Met His Ile Ile Lys Ala Gln Ala Glu Tyr Val Gln Leu		
515	520	525
Val Thr Glu Leu Arg Met Thr Arg Ala Ile Gln Pro Gln Ile Asn Ala		
530	535	540
Phe Leu Gln Gly Phe His Met Phe Ile Pro Pro Ser Leu Ile Gln Leu		
545	550	555
Phe Asp Glu Tyr Glu Leu Glu Leu Leu Ser Gly Met Pro Glu Ile		
565	570	575
Asp Val Ser Asp Trp Ile Lys Asn Thr Glu Tyr Thr Ser Gly Tyr Glu		
580	585	590
Arg Glu Asp Pro Val Ile Gln Trp Phe Trp Glu Val Val Glu Asp Ile		
595	600	605
Thr Gln Glu Glu Arg Val Leu Leu Gln Phe Val Thr Gly Ser Ser		
610	615	620
Arg Val Pro His Gly Gly Phe Ala Asn Ile Met Gly Gly Ser Gly Leu		
625	630	635
Gln Asn Phe Thr Ile Ala Ala Val Pro Tyr Thr Pro Asn Leu Leu Pro		
645	650	655
Thr Ser Ser Thr Cys Ile Asn Met Leu Lys Leu Pro Glu Tyr Pro Ser		
660	665	670
Lys Glu Ile Leu Lys Asp Arg Leu Leu Val Ala Leu His Cys Gly Ser		
675	680	685
Tyr Gly Tyr Thr Met Ala		
690		

<210> 4816

<211> 649

<212> PRT

<213> Homo sapiens

<400> 4816

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Met Pro Lys Ala Glu Ala Asn Leu Gly Gly Leu Ser Ser Leu Val Val
  1             5             10             15
Asn Thr Pro Ile Thr Ser Val Ser Leu Ser His Ser Ser Ser Glu Ser
      20             25             30
Ser Lys Met Ser Glu Ser Lys Asp Gln Glu Asn Asn Cys Glu Arg Pro
      35             40             45
Lys Glu Ser Asn Val Leu His Pro Asn Gly Glu Cys Pro Val Lys Ser
      50             55             60
Glu Pro Thr Glu Pro Gly Asp Glu Asp Glu Glu Asp Ala Tyr Ser Asn
      65             70             75             80
Glu Leu Asp Asp Glu Glu Val Leu Gly Glu Leu Thr Asp Ser Ile Gly
      85             90             95
Asn Lys Asp Phe Pro Leu Leu Asn Gln Ser Ile Ser Pro Leu Ser Ser
      100            105            110
Ser Val Leu Lys Phe Ile Glu Lys Gly Thr Ser Ser Ser Ser Ala Thr
      115            120            125
Val Ser Asp Asp Thr Glu Lys Lys Lys Gln Thr Ala Ala Val Arg Ala
      130            135            140
Ser Gly Ser Val Ala Ser Asn Tyr Gly Ile Ser Gly Lys Asp Phe Ala
      145            150            155            160
Asp Ala Ser Ala Ser Lys Asp Ser Ala Thr Ala Ala His Pro Ser Glu
      165            170            175
Ile Ala Arg Gly Asp Glu Asp Ser Ser Ala Thr Pro His Gln His Gly
      180            185            190
Phe Thr Pro Ser Thr Pro Gly Thr Pro Gly Pro Gly Gly Asp Gly Ser
      195            200            205
Pro Gly Ser Gly Ile Glu Cys Pro Lys Cys Asp Thr Val Leu Gly Ser
      210            215            220
Ser Arg Ser Leu Gly Gly His Met Thr Met Met His Ser Arg Asn Ser

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225	230	235	240
Cys Lys Thr Leu Lys Cys Pro Lys Cys Asn Trp His Tyr Lys Tyr Gln			
245	250	255	
Gln Thr Leu Glu Ala His Met Lys Glu Lys His Pro Glu Pro Gly Gly			
260	265	270	
Ser Cys Val Tyr Cys Lys Thr Gly Gln Pro His Pro Arg Leu Ala Arg			
275	280	285	
Gly Glu Ser Tyr Thr Cys Gly Tyr Lys Pro Phe Arg Cys Glu Val Cys			
290	295	300	
Asn Tyr Ser Thr Thr Thr Lys Gly Asn Leu Ser Ile His Met Gln Ser			
305	310	315	320
Asp Lys His Leu Asn Asn Val Gln Asn Leu Gln Asn Gly Asn Gly Glu			
325	330	335	
Gln Val Phe Gly His Ser Ala Pro Ala Pro Asn Thr Ser Leu Ser Gly			
340	345	350	
Cys Gly Thr Pro Ser Pro Ser Lys Pro Lys Gln Lys Pro Thr Trp Arg			
355	360	365	
Cys Glu Val Cys Asp Tyr Glu Thr Asn Val Ala Arg Asn Leu Arg Ile			
370	375	380	
His Met Thr Ser Glu Lys His Met His Asn Met Met Leu Leu Gln Gln			
385	390	395	400
Asn Met Lys Gln Ile Gln His Asn Leu His Leu Gly Leu Ala Pro Ala			
405	410	415	
Glu Ala Glu Leu Tyr Gln Tyr Tyr Leu Ala Gln Asn Ile Gly Leu Thr			
420	425	430	
Gly Met Lys Leu Glu Asn Pro Ala Asp Pro Gln Leu Met Ile Asn Pro			
435	440	445	
Phe Gln Leu Asp Pro Ala Thr Ala Ala Ala Leu Ala Pro Gly Leu Gly			
450	455	460	
Glu Leu Ser Pro Tyr Ile Ser Asp Pro Ala Leu Lys Leu Phe Gln Cys			
465	470	475	480
Ala Val Cys Asn Lys Phe Thr Ser Asp Ser Leu Glu Ala Leu Ser Val			
485	490	495	
His Val Ser Ser Glu Arg Ser Leu Pro Glu Glu Glu Trp Arg Ala Val			
500	505	510	
Ile Gly Asp Ile Tyr Gln Cys Lys Leu Cys Asn Tyr Asn Thr Gln Leu			

515	520	525
Lys Ala Asn Phe Gln Leu His Cys Glu Thr Asp Lys His Met Gln Lys		
530	535	540
Tyr Gln Leu Val Ala His Ile Lys Glu Gly Gly Lys Ser Asn Glu Trp		
545	550	555
Arg Leu Lys Cys Ile Ala Ile Gly Asn Pro Val His Leu Lys Cys Asn		
565	570	575
Ala Cys Asp Tyr Tyr Thr Asn Ser Val Asp Lys Leu Arg Leu His Thr		
580	585	590
Thr Asn His Arg His Glu Ala Ala Leu Lys Leu Tyr Lys Val Ser Ser		
595	600	605
Asp Ile His Phe Arg Trp His Arg Val Glu Lys Gly Ile Asn Ser Phe		
610	615	620
Arg Ala Trp Ser Thr Ser Leu Gln Leu Lys Glu Lys Lys Arg Glu Lys		
625	630	635
Thr Ser Lys Gly Arg Gly His Ser Phe		
645		

<210> 4817

<211> 808

<212> PRT

<213> Homo sapiens

<400> 4817

Met Leu Glu Gly His Glu Ser Tyr Asp Thr Glu Asn Phe Tyr Phe Arg
1 5 10 15
Glu Ile Arg Lys Asn Leu Gln Glu Val Asp Phe Gln Trp Lys Asp Gly
20 25 30
Glu Ile Asn Tyr Lys Glu Gly Pro Met Thr His Lys Asn Asn Leu Thr
35 40 45
Gly Gln Arg Val Arg His Ser Gln Gly Asp Val Glu Asn Lys His Met
50 55 60
Glu Asn Gln Leu Ile Leu Arg Phe Gln Ser Gly Leu Gly Glu Leu Gln
65 70 75 80
Lys Phe Gln Thr Ala Glu Lys Ile Tyr Gly Cys Asn Gln Ile Glu Arg

	85	90	95
Thr Val Asn Asn Cys Phe Leu Ala Ser Pro Leu Gln Arg Ile Phe Pro			
100	105	110	
Gly Val Gln Thr Asn Ile Ser Arg Lys Tyr Gly Asn Asp Phe Leu Gln			
115	120	125	
Leu Ser Leu Pro Thr Gln Asp Glu Lys Thr His Ile Arg Glu Lys Pro			
130	135	140	
Tyr Ile Gly Asn Glu Cys Gly Lys Ala Phe Arg Val Ser Ser Ser Leu			
145	150	155	160
Ile Asn His Gln Met Ile His Thr Thr Glu Lys Pro Tyr Arg Cys Asn			
165	170	175	
Glu Ser Gly Lys Ala Phe His Arg Gly Ser Leu Leu Thr Val His Gln			
180	185	190	
Ile Val His Thr Arg Gly Lys Pro Tyr Gln Cys Asp Val Cys Gly Arg			
195	200	205	
Ile Phe Arg Gln Asn Ser Asp Leu Val Asn His Arg Arg Ser His Thr			
210	215	220	
Gly Asp Lys Pro Tyr Ile Cys Asn Glu Cys Gly Lys Ser Phe Ser Lys			
225	230	235	240
Ser Ser His Leu Ala Val His Gln Arg Ile His Thr Gly Glu Lys Pro			
245	250	255	
Tyr Lys Cys Asn Arg Cys Gly Lys Cys Phe Ser Gln Ser Ser Ser Leu			
260	265	270	
Ala Thr His Gln Thr Val His Thr Gly Asp Lys Pro Tyr Lys Cys Asn			
275	280	285	
Glu Cys Gly Lys Thr Phe Lys Arg Asn Ser Ser Leu Thr Ala His His			
290	295	300	
Ile Ile His Ala Gly Lys Lys Pro Tyr Thr Cys Asp Val Cys Gly Lys			
305	310	315	320
Val Phe Tyr Gln Asn Ser Gln Leu Val Arg His Gln Ile Ile His Thr			
325	330	335	
Gly Glu Thr Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Phe Gln			
340	345	350	
Arg Ser Arg Leu Ala Gly His Arg Arg Ile His Thr Gly Glu Lys Pro			
355	360	365	

Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Ser Gln His Ser His Leu
 370 375 380
 Ala Val His Gln Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Asn
 385 390 395 400
 Glu Cys Gly Lys Ala Phe Asn Trp Gly Ser Leu Leu Thr Val His Gln
 405 410 415
 Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Val Cys Gly Lys
 420 425 430
 Val Phe Asn Tyr Gly Gly Tyr Leu Ser Val His Met Arg Cys His Thr
 435 440 445
 Gly Glu Lys Pro Leu His Cys Asn Lys Cys Gly Met Val Phe Thr Tyr
 450 455 460
 Tyr Ser Cys Leu Ala Arg His Gln Arg Met His Thr Gly Glu Lys Pro
 465 470 475 480
 Tyr Lys Cys Asn Val Cys Gly Lys Val Phe Ile Asp Ser Gly Asn Leu
 485 490 495
 Ser Ile His Arg Arg Ser His Thr Gly Glu Lys Pro Phe Gln Cys Asn
 500 505 510
 Glu Cys Gly Lys Val Phe Ser Tyr Tyr Ser Cys Leu Ala Arg His Arg
 515 520 525
 Lys Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Asp Cys Gly Lys
 530 535 540
 Ala Tyr Thr Gln Arg Ser Ser Leu Thr Lys His Leu Val Ile His Thr
 545 550 555 560
 Gly Glu Asn Pro Tyr His Cys Asn Glu Phe Gly Glu Ala Phe Ile Gln
 565 570 575
 Ser Ser Lys Leu Ala Arg Tyr His Arg Asn Pro Thr Gly Glu Lys Pro
 580 585 590
 His Lys Cys Ser Glu Cys Gly Arg Thr Phe Ser His Lys Thr Ser Leu
 595 600 605
 Val Tyr His Gln Arg Arg His Thr Gly Glu Met Pro Tyr Lys Cys Ile
 610 615 620
 Glu Cys Gly Lys Val Phe Asn Ser Thr Thr Thr Leu Ala Arg His Arg
 625 630 635 640
 Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys
 645 650 655

Val Phe Arg Tyr Arg Ser Gly Leu Ala Arg His Trp Ser Ile His Thr
 660 665 670
 Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Arg Val
 675 680 685
 Arg Ser Ile Leu Leu Asn His Gln Met Met His Thr Gly Glu Lys Pro
 690 695 700
 Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ile Glu Arg Ser Asn Leu
 705 710 715 720
 Val Tyr His Gln Arg Asn His Thr Gly Glu Lys Pro Tyr Lys Cys Met
 725 730 735
 Glu Cys Gly Lys Ala Phe Gly Arg Arg Ser Cys Leu Thr Lys His Gln
 740 745 750
 Arg Ile His Ser Ser Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys
 755 760 765
 Ser Tyr Ile Ser Arg Ser Gly Leu Thr Lys His Gln Ile Lys His Ala
 770 775 780
 Gly Glu Asn Leu Thr Thr Lys Leu Asn Val Glu Arg Pro Leu Asp Val
 785 790 795 800
 Val Leu Thr Ser Gly Ile Pro Lys
 805

<210> 4818

<211> 602

<212> PRT

<213> Homo sapiens

<400> 4818

Met Ile Gln Ser Gly Lys Gly Ala Asp Pro Pro Asp Lys Lys Asp Met
 1 5 10 15
 Lys Leu Ser Thr Ala Thr Asn Pro Gln Asn Gly Leu Ser Gln Ile Leu
 20 25 30
 Arg Leu Val Leu Gln Glu Leu Ser Leu Phe Tyr Ser Arg Asp Val Asn
 35 40 45
 Gly Val Cys Leu Leu Tyr Asp Leu Leu His Ser Pro Trp Leu Gln Ala
 50 55 60

Leu Leu Lys Ile Tyr Asp Cys Leu Gln Glu Phe Lys Glu Lys Lys Leu
 65 70 75 80
 Val Pro Ala Thr Pro His Ala Gln Val Leu Ser Tyr Glu Val Val Glu
 85 90 95
 Leu Leu Arg Glu Thr Pro Thr Ser Pro Glu Ile Gln Glu Leu Arg Gln
 100 105 110
 Met Leu Gln Ala Pro His Phe Lys Gly Ala Thr Ile Lys Arg His Glu
 115 120 125
 Met Thr Gly Asp Ile Leu Val Ala Arg Ile Ile His Gly Gly Leu Ala
 130 135 140
 Glu Arg Ser Gly Leu Leu Tyr Ala Gly Asp Lys Leu Val Glu Val Asn
 145 150 155 160
 Gly Val Ser Val Glu Gly Leu Asp Pro Glu Gln Val Ile His Ile Leu
 165 170 175
 Ala Met Ser Arg Gly Thr Ile Met Phe Lys Val Val Pro Val Ser Asp
 180 185 190
 Pro Pro Val Asn Ser Gln Gln Met Val Tyr Val Arg Ala Met Thr Glu
 195 200 205
 Tyr Trp Pro Gln Glu Asp Pro Asp Ile Pro Cys Met Asp Ala Gly Leu
 210 215 220
 Pro Phe Gln Lys Gly Asp Ile Leu Gln Ile Val Asp Gln Asn Asp Ala
 225 230 235 240
 Leu Trp Trp Gln Ala Arg Lys Ile Ser Asp Pro Ala Thr Cys Ala Gly
 245 250 255
 Leu Val Pro Ser Asn His Leu Leu Lys Arg Trp Ser Phe Ala Leu Val
 260 265 270
 Ala Gln Ala Gly Val Gln Trp His Tyr Leu Asp Ser Leu Gln Pro Leu
 275 280 285
 Pro Pro Gly Phe Lys Arg Phe Ser Cys Leu Ser Leu Pro Arg Ser Trp
 290 295 300
 Asp Tyr Ile Glu Asp Asp Met Lys Ile Asp Glu Lys Cys Val Glu Ala
 305 310 315 320
 Asp Glu Glu Thr Phe Glu Ser Asp Lys Glu Glu Phe Val Gly Tyr Gly
 325 330 335
 Gln Lys Phe Phe Ile Ala Gly Phe Arg Arg Ser Met Arg Leu Cys Arg
 340 345 350

Arg Lys Ser His Leu Ser Pro Leu His Ala Ser Val Cys Cys Thr Gly
 355 360 365
 Ser Cys Tyr Ser Ala Val Gly Ala Pro Tyr Glu Glu Val Val Arg Tyr
 370 375 380
 Gln Arg Arg Pro Ser Asp Lys Tyr Arg Leu Ile Val Leu Met Gly Pro
 385 390 395 400
 Ser Gly Val Gly Val Asn Glu Leu Arg Arg Gln Leu Ile Glu Phe Asn
 405 410 415
 Pro Ser His Phe Gln Ser Ala Val Pro His Thr Thr Arg Thr Lys Lys
 420 425 430
 Ser Tyr Glu Met Asn Gly Arg Glu Tyr His Tyr Val Ser Lys Glu Thr
 435 440 445
 Phe Glu Asn Leu Ile Tyr Ser His Arg Met Leu Glu Tyr Gly Glu Tyr
 450 455 460
 Lys Gly His Leu Tyr Gly Thr Ser Val Asp Ala Val Gln Thr Val Leu
 465 470 475 480
 Val Glu Gly Lys Ile Cys Val Met Asp Leu Glu Pro Gln Asp Ile Gln
 485 490 495
 Gly Val Arg Thr His Glu Leu Lys Pro Tyr Val Ile Phe Ile Lys Pro
 500 505 510
 Ser Asn Met Arg Cys Met Lys Gln Ser Arg Lys Asn Ala Lys Val Ile
 515 520 525
 Thr Asp Tyr Tyr Val Asp Met Lys Phe Lys Asp Glu Asp Leu Gln Glu
 530 535 540
 Met Glu Asn Leu Ala Gln Arg Met Glu Thr Gln Phe Gly Gln Phe Phe
 545 550 555 560
 Asp His Val Ile Val Asn Asp Ser Leu His Asp Ala Cys Ala Gln Leu
 565 570 575
 Leu Ser Ala Ile Gln Lys Ala Gln Glu Glu Pro Gln Trp Val Pro Ala
 580 585 590
 Thr Trp Ile Ser Ser Asp Thr Glu Ser Gln
 595 600

<210> 4819

<211> 498

<212> PRT

<213> Homo sapiens

<400> 4819

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Met Glu Ser Pro Arg Gly Trp Thr Leu Gln Val Ala Pro Glu Glu Gly
  1             5             10             15
Gln Val Leu Cys Asn Val Lys Thr Ala Thr Arg Gly Leu Ser Glu Gly
      20             25             30
Ala Val Ser Gly Gly Trp Gly Ala Trp Glu Asn Ser Thr Glu Val Pro
      35             40             45
Arg Glu Ala Gly Asp Gly Gln Arg Gln Gln Ala Thr Leu Gly Ala Ala
      50             55             60
Asp Glu Gln Gly Gly Pro Gly Arg Glu Leu Gly Pro Ala Asp Gly Gly
      65             70             75             80
Arg Asp Gly Ala Gly Pro Arg Ser Glu Pro Ala Asp Arg Ala Leu Arg
      85             90             95
Pro Ser Pro Leu Pro Glu Glu Pro Gly Cys Arg Cys Gly Glu Cys Gly
      100            105            110
Lys Ala Phe Ser Gln Gly Ser Tyr Leu Leu Gln His Arg Arg Val His
      115            120            125
Thr Gly Glu Lys Pro Tyr Thr Cys Pro Glu Cys Gly Lys Ala Phe Ala
      130            135            140
Trp Ser Ser Asn Leu Ser Gln His Gln Arg Ile His Ser Gly Glu Lys
      145            150            155            160
Pro Tyr Ala Cys Arg Glu Cys Gly Lys Ala Phe Arg Ala Gln Ser Gln
      165            170            175
Leu Ile His His Gln Glu Thr His Ser Gly Leu Lys Pro Phe Arg Cys
      180            185            190
Pro Asp Cys Gly Lys Ser Phe Gly Arg Ser Thr Thr Leu Val Gln His
      195            200            205
Arg Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Pro Glu Cys Gly
      210            215            220
Lys Ala Phe Ser Trp Asn Ser Asn Phe Leu Glu His Arg Arg Val His
      225            230            235            240
Thr Gly Ala Arg Pro His Ala Cys Arg Asp Cys Gly Lys Ala Phe Ser
      245            250            255

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Gln Ser Ser Asn Leu Ala Glu His Leu Lys Ile His Ala Gly Ala Arg
 260 265 270
 Pro His Ala Cys Pro Asp Cys Gly Lys Ala Phe Val Arg Val Ala Gly
 275 280 285
 Leu Arg Gln His Arg Arg Thr His Ser Ser Glu Lys Pro Phe Pro Cys
 290 295 300
 Ala Glu Cys Gly Lys Ala Phe Arg Glu Ser Ser Gln Leu Leu Gln His
 305 310 315 320
 Gln Arg Thr His Thr Gly Glu Arg Pro Phe Glu Cys Ala Glu Cys Gly
 325 330 335
 Gln Ala Phe Val Met Gly Ser Tyr Leu Ala Glu His Arg Arg Val His
 340 345 350
 Thr Gly Glu Lys Pro His Ala Cys Ala Gln Cys Gly Lys Ala Phe Ser
 355 360 365
 Gln Arg Ser Asn Leu Leu Ser His Arg Arg Thr His Ser Gly Ala Lys
 370 375 380
 Pro Phe Ala Cys Ala Asp Cys Gly Lys Ala Phe Arg Gly Ser Ser Gly
 385 390 395 400
 Leu Ala His His Arg Leu Ser His Thr Gly Glu Arg Pro Phe Ala Cys
 405 410 415
 Ala Glu Cys Gly Lys Ala Phe Arg Gly Ser Ser Glu Leu Arg Gln His
 420 425 430
 Gln Arg Leu His Ser Gly Glu Arg Pro Phe Val Cys Ala His Cys Ser
 435 440 445
 Lys Ala Phe Val Arg Lys Ser Glu Leu Leu Ser His Arg Arg Thr His
 450 455 460
 Thr Gly Glu Arg Pro Tyr Ala Cys Gly Glu Cys Gly Lys Pro Phe Ser
 465 470 475 480
 His Arg Cys Asn Leu Asn Glu His Gln Lys Arg His Gly Gly Arg Ala
 485 490 495
 Ala Pro

<210> 4820

<211> 486

<212> PRT

<213> Homo sapiens

<400> 4820

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Met Arg Gly Arg Gly Ser Gln Gln Gln Gln Pro Thr Arg Arg Gln Gly
  1             5             10             15
Gln Lys Leu Pro Ser Pro Ser Pro Ala Gly Lys Tyr Glu Ser Ala Gln
      20             25             30
Pro Gly Gly Thr Gln Pro Glu Pro Gly Leu Gly Ala Arg Met Ala Ile
      35             40             45
His Lys Ala Leu Val Met Cys Leu Gly Leu Pro Leu Phe Leu Phe Pro
      50             55             60
Gly Ala Trp Ala Gln Gly His Val Pro Pro Gly Cys Ser Gln Gly Leu
      65             70             75             80
Asn Pro Leu Tyr Tyr Asn Leu Cys Asp Arg Ser Gly Ala Trp Gly Ile
      85             90             95
Val Leu Glu Ala Val Ala Gly Ala Gly Ile Val Thr Thr Phe Val Leu
      100            105            110
Thr Ile Ile Leu Val Ala Ser Leu Pro Phe Val Gln Asp Thr Lys Lys
      115            120            125
Arg Ser Leu Leu Gly Thr Gln Val Phe Phe Leu Leu Gly Thr Leu Gly
      130            135            140
Leu Phe Cys Leu Val Phe Ala Cys Val Val Lys Pro Asp Phe Ser Thr
      145            150            155            160
Cys Ala Ser Arg Arg Phe Leu Phe Gly Val Leu Phe Ala Ile Cys Phe
      165            170            175
Ser Cys Leu Ala Ala His Val Phe Ala Leu Asn Phe Leu Ala Arg Lys
      180            185            190
Asn His Gly Pro Arg Gly Trp Val Ile Phe Thr Val Ala Leu Leu Leu
      195            200            205
Thr Leu Val Glu Val Ile Ile Asn Thr Glu Trp Leu Ile Ile Thr Leu
      210            215            220
Val Arg Gly Ser Gly Glu Gly Gly Pro Gln Gly Asn Ser Ser Ala Gly
      225            230            235            240
Trp Ala Val Ala Ser Pro Cys Ala Ile Ala Asn Met Asp Phe Val Met
      245            250            255

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Ala Leu Ile Tyr Val Met Leu Leu Leu Leu Gly Ala Phe Leu Gly Ala
 260 265 270
 Trp Pro Ala Leu Cys Gly Arg Tyr Lys Arg Trp Arg Lys His Gly Val
 275 280 285
 Phe Val Leu Leu Thr Thr Ala Thr Ser Val Ala Ile Trp Val Val Trp
 290 295 300
 Ile Val Met Tyr Thr Tyr Gly Asn Lys Gln His Asn Ser Pro Thr Trp
 305 310 315 320
 Asp Asp Pro Thr Leu Ala Ile Ala Leu Ala Ala Asn Ala Trp Ala Phe
 325 330 335
 Val Leu Phe Tyr Val Ile Pro Glu Val Ser Gln Val Thr Lys Ser Ser
 340 345 350
 Pro Glu Gln Ser Tyr Gln Gly Asp Met Tyr Pro Thr Arg Gly Val Gly
 355 360 365
 Tyr Glu Thr Ile Leu Lys Glu Gln Lys Gly Gln Ser Met Phe Val Glu
 370 375 380
 Asn Lys Ala Phe Ser Met Asp Glu Pro Val Ala Ala Lys Arg Pro Val
 385 390 395 400
 Ser Pro Tyr Ser Gly Tyr Asn Gly Gln Leu Leu Thr Ser Val Tyr Gln
 405 410 415
 Pro Thr Glu Met Ala Leu Met His Lys Val Pro Ser Glu Gly Ala Tyr
 420 425 430
 Asp Ile Ile Leu Pro Arg Ala Thr Ala Asn Ser Gln Val Met Gly Ser
 435 440 445
 Ala Asn Ser Thr Leu Arg Ala Glu Asp Met Tyr Ser Ala Gln Ser His
 450 455 460
 Gln Ala Ala Thr Pro Pro Lys Asp Gly Lys Asn Ser Gln Val Phe Arg
 465 470 475 480
 Asn Pro Tyr Val Trp Asp
 485

<210> 4821

<211> 301

<212> PRT

<213> Homo sapiens

<400> 4821

Met Tyr Thr Arg Arg Tyr Ser Ser Ile Ser Ser Thr Ile Met Asp Val
 1 5 10 15
 Asp Ser Thr Ile Ser Ser Gly Arg Ser Thr Pro Ala Met Met Asn Gly
 20 25 30
 Gln Gly Ser Thr Thr Ser Ser Ser Lys Asn Ile Ala Tyr Asn Cys Cys
 35 40 45
 Trp Asp Gln Cys Gln Ala Cys Phe Asn Ser Ser Pro Asp Leu Ala Asp
 50 55 60
 His Ile Arg Ser Ile His Val Asp Gly Gln Arg Gly Gly Val Phe Val
 65 70 75 80
 Cys Leu Trp Lys Gly Cys Lys Val Tyr Asn Thr Pro Ser Thr Ser Gln
 85 90 95
 Ser Trp Leu Gln Arg His Met Leu Thr His Ser Gly Asp Lys Pro Phe
 100 105 110
 Lys Cys Val Val Gly Gly Cys Asn Ala Ser Phe Ala Ser Gln Gly Gly
 115 120 125
 Leu Ala Arg His Val Pro Thr His Phe Ser Gln Gln Asn Ser Ser Lys
 130 135 140
 Val Ser Ser Gln Pro Lys Ala Lys Glu Glu Ser Pro Ser Lys Ala Gly
 145 150 155 160
 Met Asn Lys Arg Arg Lys Leu Lys Asn Lys Arg Arg Arg Ser Leu Pro
 165 170 175
 Arg Pro His Asp Phe Phe Asp Ala Gln Thr Leu Asp Ala Ile Arg His
 180 185 190
 Arg Ala Ile Cys Phe Asn Leu Ser Ala His Ile Glu Ser Leu Gly Lys
 195 200 205
 Gly His Ser Val Val Phe His Ser Thr Val Ile Ala Lys Arg Lys Glu
 210 215 220
 Asp Ser Gly Lys Ile Lys Leu Leu Leu His Trp Met Pro Glu Asp Ile
 225 230 235 240
 Leu Pro Asp Val Trp Val Asn Glu Ser Glu Arg His Gln Leu Lys Thr
 245 250 255
 Lys Val Val His Leu Ser Lys Leu Pro Lys Asp Thr Ala Leu Leu Leu

260	265	270
Asp Pro Asn Ile Tyr Arg Thr Met Pro Gln Lys Arg Leu Lys Arg Thr		
275	280	285
Leu Ile Arg Lys Val Phe Asn Leu Tyr Leu Ser Lys Gln		
290	295	300

<210> 4822

<211> 626

<212> PRT

<213> Homo sapiens

<400> 4822

Met Ala Val Ser Gly Phe Thr Leu Gly Thr Cys Ile Leu Leu Leu His		
1	5	10
Ile Ser Tyr Val Ala Asn Tyr Pro Asn Gly Lys Val Thr Gln Ser Cys		
20	25	30
His Gly Met Ile Pro Glu His Gly His Ser Pro Gln Ser Val Pro Val		
35	40	45
His Asp Ile Tyr Val Ser Gln Met Thr Phe Arg Pro Gly Asp Gln Ile		
50	55	60
Glu Val Thr Leu Ser Gly His Pro Phe Lys Gly Phe Leu Leu Glu Ala		
65	70	75
Arg Asn Ala Glu Asp Leu Asn Gly Pro Pro Ile Gly Ser Phe Thr Leu		
85	90	95
Ile Asp Ser Glu Val Ser Gln Leu Leu Thr Cys Glu Asp Ile Gln Gly		
100	105	110
Ser Ala Val Ser His Arg Ser Ala Ser Lys Lys Thr Glu Ile Lys Val		
115	120	125
Tyr Trp Asn Ala Pro Ser Ser Ala Pro Asn His Thr Gln Phe Leu Val		
130	135	140
Thr Val Val Glu Lys Tyr Lys Ile Tyr Trp Val Lys Ile Pro Gly Pro		
145	150	155
Ile Ile Ser Gln Pro Asn Ala Phe Pro Phe Thr Thr Pro Lys Ala Thr		
165	170	175
Val Val Leu Leu Pro Thr Leu Pro Pro Val Ser His Leu Thr Lys Pro		

180	185	190
Phe Ser Ala Ser Asp Cys Gly Asn Lys Lys Phe Cys Ile Arg Ser Pro		
195	200	205
Leu Asn Cys Asp Pro Glu Lys Glu Ala Ser Cys Val Phe Leu Ser Phe		
210	215	220
Thr Arg Asp Asp Gln Ser Val Met Val Glu Met Ser Gly Pro Ser Lys		
225	230	235
Gly Tyr Leu Ser Phe Ala Leu Ser His Asp Gln Trp Met Gly Asp Asp		
245	250	255
Asp Ala Tyr Leu Cys Ile His Glu Asp Gln Thr Val Tyr Ile Gln Pro		
260	265	270
Ser His Leu Thr Gly Arg Ser His Pro Val Met Asp Ser Arg Asp Thr		
275	280	285
Leu Glu Asp Met Ala Trp Arg Leu Ala Asp Gly Val Met Gln Cys Ser		
290	295	300
Phe Arg Arg Asn Ile Thr Leu Pro Gly Val Lys Asn Arg Phe Asp Leu		
305	310	315
Asn Thr Ser Tyr Tyr Ile Phe Leu Ala Asp Gly Ala Ala Asn Asp Gly		
325	330	335
Arg Ile Tyr Lys His Ser Gln Gln Pro Leu Ile Thr Tyr Glu Lys Tyr		
340	345	350
Asp Val Thr Asp Ser Pro Lys Asn Ile Gly Gly Ser His Ser Val Leu		
355	360	365
Leu Leu Lys Val His Gly Ala Leu Met Phe Val Ala Trp Met Thr Thr		
370	375	380
Val Ser Ile Gly Val Leu Val Ala Arg Phe Phe Lys Pro Val Trp Ser		
385	390	395
Lys Ala Phe Leu Leu Gly Glu Ala Ala Trp Phe Gln Val His Arg Met		
405	410	415
Leu Met Phe Thr Thr Thr Val Leu Thr Cys Ile Ala Phe Val Met Pro		
420	425	430
Phe Ile Tyr Arg Gly Gly Trp Ser Arg His Ala Gly Tyr His Pro Tyr		
435	440	445
Leu Gly Cys Ile Val Met Thr Leu Ala Val Leu Gln Pro Leu Leu Ala		
450	455	460
Val Phe Arg Pro Pro Leu His Asp Pro Arg Arg Gln Met Phe Asn Trp		

465 470 475 480
 Thr His Trp Ser Met Gly Thr Ala Ala Arg Ile Ile Ala Val Ala Ala
 485 490 495
 Met Phe Leu Gly Met Asp Leu Pro Gly Leu Asn Leu Pro Asp Ser Trp
 500 505 510
 Lys Thr Tyr Ala Met Thr Gly Phe Val Ala Trp His Val Gly Thr Glu
 515 520 525
 Val Val Leu Glu Leu Lys Tyr Trp Met Met Thr Glu Phe Arg Ser Phe
 530 535 540
 Ser His Leu Leu Gln Trp Lys Gln Arg Val Met Leu Leu Lys Arg Gln
 545 550 555 560
 Cys Trp Gln Phe Met Ser Val Gly Met Leu Leu Phe Ser Ser Tyr Phe
 565 570 575
 Tyr Leu Gln Ser Thr Ile Tyr Glu Gln Ala Lys Thr Leu Ala Phe Ala
 580 585 590
 Gly Gln Val Ile Ile Ile Ile Lys Pro Lys Lys Leu Glu Ala Cys Pro
 595 600 605
 Asp Cys Leu Glu His Ile Cys Glu Phe Ser Leu Gly Arg Leu Gly Ser
 610 615 620
 Cys Leu
 625

<210> 4823

<211> 827

<212> PRT

<213> Homo sapiens

<400> 4823

Met Ile Arg Arg Leu Lys Thr Glu Val Leu Thr Gln Leu Pro Pro Lys
 1 5 10 15
 Val Arg Gln Arg Ile Pro Phe Asp Leu Pro Ser Ala Ala Ala Lys Glu
 20 25 30
 Leu Asn Thr Ser Phe Glu Glu Trp Glu Lys Ile Met Arg Thr Pro Asn
 35 40 45
 Ser Gly Ala Met Glu Thr Val Met Gly Leu Ile Thr Arg Met Phe Lys

50	55	60	
Gln Thr Ala Ile Ala Lys Ala Gly Ala Val Lys Asp Tyr Ile Lys Met			
65	70	75	80
Met Leu Gln Asn Asp Ser Leu Lys Phe Leu Val Phe Ala His His Leu			
	85	90	95
Ser Met Leu Gln Ala Cys Thr Glu Ala Val Ile Glu Asn Lys Thr Arg			
100	105	110	
Tyr Ile Arg Ile Asp Gly Ser Val Ser Ser Ser Glu Arg Ile His Leu			
115	120	125	
Val Asn Gln Phe Gln Lys Asp Pro Asp Thr Arg Val Ala Ile Leu Ser			
130	135	140	
Ile Gln Ala Ala Gly Gln Gly Leu Thr Phe Thr Ala Ala Ser His Val			
145	150	155	160
Val Phe Ala Glu Leu Tyr Trp Asp Pro Gly His Ile Lys Gln Ala Glu			
	165	170	175
Asp Arg Ala His Arg Ile Gly Gln Cys Ser Ser Val Asn Ile His Tyr			
180	185	190	
Leu Ile Ala Asn Gly Thr Leu Asp Thr Leu Met Trp Gly Met Leu Asn			
195	200	205	
Arg Lys Ala Gln Val Thr Gly Ser Thr Leu Asn Gly Arg Lys Glu Lys			
210	215	220	
Ile Gln Ala Glu Glu Gly Asp Lys Glu Lys Trp Asp Phe Leu Gln Phe			
225	230	235	240
Ala Glu Ala Trp Thr Pro Asn Asp Ser Ser Glu Glu Leu Arg Lys Glu			
	245	250	255
Ala Leu Phe Thr His Phe Glu Lys Glu Lys Gln His Asp Ile Arg Ser			
260	265	270	
Phe Phe Val Pro Gln Pro Lys Lys Arg Gln Leu Met Thr Ser Cys Asp			
275	280	285	
Glu Ser Lys Arg Phe Arg Glu Glu Asn Thr Val Val Ser Ser Asp Pro			
290	295	300	
Thr Lys Thr Ala Ala Arg Asp Ile Ile Asp Tyr Glu Ser Asp Val Glu			
305	310	315	320
Pro Glu Thr Lys Arg Leu Lys Leu Ala Ala Ser Glu Asp His Cys Ser			
	325	330	335
Pro Ser Glu Glu Thr Pro Ser Gln Ser Lys Gln Ile Arg Thr Pro Leu			

340	345	350
Val Glu Ser Val Gln Glu Ala Lys Ala Gln Leu Thr Thr Pro Ala Phe		
355	360	365
Pro Val Glu Gly Trp Gln Cys Ser Leu Cys Thr Tyr Ile Asn Asn Ser		
370	375	380
Glu Leu Pro Tyr Cys Glu Met Cys Glu Thr Pro Gln Gly Ser Ala Val		
385	390	395
Met Gln Ile Asp Ser Leu Asn His Ile Gln Asp Lys Asn Glu Lys Asp		
405	410	415
Asp Ser Gln Lys Asp Thr Ser Lys Lys Val Gln Thr Ile Ser Asp Cys		
420	425	430
Glu Lys Gln Ala Leu Ala Gln Ser Glu Pro Gly Gln Leu Ala Asp Ser		
435	440	445
Lys Glu Glu Thr Pro Lys Ile Glu Lys Glu Asp Gly Leu Thr Ser Gln		
450	455	460
Pro Gly Asn Glu Gln Trp Lys Ser Ser Asp Thr Leu Pro Val Tyr Asp		
465	470	475
Thr Leu Met Phe Cys Ala Ser Arg Asn Thr Asp Arg Ile His Ile Tyr		
485	490	495
Thr Lys Asp Gly Lys Gln Met Ser Cys Asn Phe Ile Pro Leu Asp Ile		
500	505	510
Lys Leu Asp Leu Trp Glu Asp Leu Pro Ala Ser Phe Gln Leu Lys Gln		
515	520	525
Tyr Arg Ser Leu Ile Leu Arg Phe Val Arg Glu Trp Ser Ser Leu Thr		
530	535	540
Ala Met Lys Gln Arg Ile Ile Arg Lys Ser Gly Gln Leu Phe Cys Ser		
545	550	555
Pro Ile Leu Ala Leu Glu Glu Ile Thr Lys Gln Gln Thr Lys Gln Asn		
565	570	575
Cys Thr Lys Arg Tyr Ile Thr Lys Glu Asp Val Ala Val Ala Ser Met		
580	585	590
Asp Lys Ala Lys Asn Val Gly Gly His Val Arg Leu Ile Thr Lys Glu		
595	600	605
Ser Arg Pro Arg Asp Pro Phe Thr Lys Lys Leu Leu Glu Asp Gly Ala		
610	615	620
Cys Val Pro Phe Leu Asn Pro Tyr Thr Val Gln Ala Asp Leu Thr Val		

625	630	635	640
Lys Pro Ser Thr Ser Lys Gly Tyr Leu Gln Ala Val Asp Asn Glu Gly			
	645	650	655
Asn Pro Leu Cys Leu Arg Cys Gln Gln Pro Thr Cys Gln Thr Lys Gln			
	660	665	670
Ala Cys Lys Ala Asn Ser Trp Asp Ser Arg Phe Cys Ser Leu Lys Cys			
	675	680	685
Gln Glu Glu Phe Trp Ile Arg Ser Asn Asn Ser Tyr Leu Arg Ala Lys			
	690	695	700
Val Phe Glu Thr Glu His Gly Val Cys Gln Leu Cys Asn Val Asn Ala			
705	710	715	720
Gln Glu Leu Phe Leu Arg Leu Arg Asp Ala Pro Lys Ser Gln Arg Lys			
	725	730	735
Asn Leu Leu Tyr Ala Thr Trp Thr Ser Lys Leu Pro Leu Glu Gln Leu			
	740	745	750
Asn Glu Met Ile Arg Asn Pro Gly Glu Gly His Phe Trp Gln Val Asp			
	755	760	765
His Ile Lys Pro Val Tyr Gly Gly Gly Gly Gln Cys Ser Leu Asp Asn			
	770	775	780
Leu Gln Thr Leu Cys Thr Val Cys His Lys Glu Arg Thr Ala Arg Gln			
785	790	795	800
Ala Lys Glu Arg Ser Gln Val Arg Arg Gln Ser Leu Ala Ser Lys His			
	805	810	815
Gly Ser Asp Ile Thr Arg Phe Leu Val Lys Lys			
	820	825	

<210> 4824

<211> 994

<212> PRT

<213> Homo sapiens

<400> 4824

Met Ser Gln Trp Thr Pro Glu Tyr Lys Glu Leu Tyr Thr Leu Lys Val			
1	5	10	15
Asp Met Lys Ser Glu Ile Pro Ser Asp Ala Pro Lys Thr Gln Glu Ser			

20	25	30
Leu Lys Gly Ile Leu Leu His Pro Glu Pro Ile Gly Ala Ala Lys Ser		
35	40	45
Phe Pro Ala Gly Val Glu Met Ile Asn Ser Lys Val Gly Asn Glu Phe		
50	55	60
Ser His Leu Cys Asp Asp Ser Gln Lys Gln Glu Lys Glu Met Asn Gly		
65	70	75
Asn Gln Gln Glu Gln Glu Lys Ser Leu Val Val Arg Lys Lys Arg Lys		
85	90	95
Ser Gln Gln Ala Gly Pro Ser Tyr Val Gln Asn Cys Val Lys Glu Asn		
100	105	110
Gln Gly Ile Leu Gly Leu Arg Gln His Leu Gly Thr Pro Ser Asp Glu		
115	120	125
Asp Asn Asp Ser Ser Phe Ser Asp Cys Leu Ser Ser Pro Ser Ser Ser		
130	135	140
Leu His Phe Gly Asp Ser Asp Thr Val Thr Ser Asp Glu Asp Lys Glu		
145	150	155
Val Ser Val Arg His Ser Gln Thr Ile Leu Asn Ala Lys Ser Arg Ser		
165	170	175
His Ser Ala Arg Ser His Lys Trp Pro Arg Thr Glu Thr Glu Ser Val		
180	185	190
Ser Gly Leu Leu Met Lys Arg Pro Cys Leu His Gly Ser Ser Leu Arg		
195	200	205
Arg Leu Pro Cys Arg Lys Arg Phe Val Lys Asn Asn Ser Ser Gln Arg		
210	215	220
Thr Gln Lys Gln Lys Glu Arg Ile Leu Met Gln Arg Lys Lys Arg Glu		
225	230	235
Val Leu Ala Arg Arg Lys Tyr Ala Leu Leu Pro Ser Ser Ser Ser Ser		
245	250	255
Ser Glu Asn Asp Leu Ser Ser Glu Ser Ser Ser Ser Ser Ser Thr Glu		
260	265	270
Gly Glu Glu Asp Leu Phe Val Ser Ala Ser Glu Asn His Gln Asn Asn		
275	280	285
Pro Ala Val Pro Ser Gly Ser Ile Asp Glu Asp Val Val Val Ile Glu		
290	295	300

Ala Ser Ser Thr Pro Gln Val Thr Ala Asn Glu Glu Ile Asn Val Thr
 305 310 315 320
 Ser Thr Asp Ser Glu Val Glu Ile Val Thr Val Gly Glu Ser Tyr Arg
 325 330 335
 Ser Arg Ser Thr Leu Gly His Ser Arg Ser His Trp Ser Gln Gly Ser
 340 345 350
 Ser Ser His Ala Ser Arg Pro Gln Glu Pro Arg Asn Arg Ser Arg Ile
 355 360 365
 Ser Thr Val Ile Gln Pro Leu Arg Gln Asn Ala Ala Glu Val Val Asp
 370 375 380
 Leu Thr Val Asp Glu Asp Glu Pro Thr Val Val Pro Thr Thr Ser Ala
 385 390 395 400
 Arg Met Glu Ser Gln Ala Thr Ser Ala Ser Ile Asn Asn Ser Asn Pro
 405 410 415
 Ser Thr Ser Glu Gln Ala Ser Asp Thr Ala Ser Ala Val Thr Ser Ser
 420 425 430
 Gln Pro Ser Thr Val Ser Glu Thr Ser Ala Thr Leu Thr Ser Asn Ser
 435 440 445
 Thr Thr Gly Thr Ser Ile Gly Asp Asp Ser Arg Arg Thr Thr Ser Ser
 450 455 460
 Ala Val Thr Glu Thr Gly Pro Pro Ala Met Pro Arg Leu Pro Ser Cys
 465 470 475 480
 Cys Pro Gln His Ser Pro Cys Gly Gly Ser Ser Gln Asn His His Ala
 485 490 495
 Leu Gly His Pro His Thr Ser Cys Phe Gln Gln His Gly His His Phe
 500 505 510
 Gln His His His His His His His Thr Pro His Pro Ala Val Pro Val
 515 520 525
 Ser Pro Ser Phe Ser Asp Pro Ala Cys Pro Val Glu Arg Pro Pro Gln
 530 535 540
 Val Gln Ala Pro Cys Gly Ala Asn Ser Ser Ser Gly Thr Ser Tyr His
 545 550 555 560
 Glu Gln Gln Ala Leu Pro Val Asp Leu Ser Asn Ser Gly Ile Arg Ser
 565 570 575
 His Gly Ser Gly Ser Phe His Gly Ala Ser Ala Phe Asp Pro Cys Cys
 580 585 590

Pro Val Ser Ser Ser Arg Ala Ala Ile Phe Gly His Gln Ala Ala Ala
 595 600 605
 Ala Ala Pro Ser Gln Pro Leu Ser Ser Ile Asp Gly Tyr Gly Ser Ser
 610 615 620
 Met Val Ala Gln Pro Gln Pro Gln Pro Pro Pro Gln Pro Ser Leu Ser
 625 630 635 640
 Ser Cys Arg His Tyr Met Pro Pro Pro Tyr Ala Ser Leu Thr Arg Pro
 645 650 655
 Leu His His Gln Ala Ser Ala Cys Pro His Ser His Gly Asn Pro Pro
 660 665 670
 Pro Gln Thr Gln Pro Pro Pro Gln Val Asp Tyr Val Ile Pro His Pro
 675 680 685
 Val His Ala Phe His Ser Gln Ile Ser Ser His Ala Thr Ser His Pro
 690 695 700
 Val Ala Pro Pro Pro Pro Thr His Leu Ala Ser Thr Ala Ala Pro Ile
 705 710 715 720
 Pro Gln His Leu Pro Pro Thr His Gln Pro Ile Ser His His Ile Pro
 725 730 735
 Ala Thr Ala Pro Pro Ala Gln Arg Leu His Pro His Glu Val Met Gln
 740 745 750
 Arg Met Glu Val Gln Arg Arg Arg Met Met Gln His Pro Thr Arg Ala
 755 760 765
 His Glu Arg Pro Pro Pro His Pro His Arg Met His Pro Asn Tyr Gly
 770 775 780
 His Gly His His Ile His Val Pro Gln Thr Met Ser Ser His Pro Arg
 785 790 795 800
 Gln Ala Pro Glu Arg Ser Ala Trp Glu Leu Gly Ile Glu Ala Gly Val
 805 810 815
 Thr Ala Ala Thr Tyr Thr Pro Gly Ala Leu His Pro His Leu Ala His
 820 825 830
 Tyr His Ala Pro Pro Arg Leu His His Leu Gln Leu Gly Ala Leu Pro
 835 840 845
 Leu Met Val Pro Asp Met Ala Gly Tyr Pro His Ile Arg Tyr Ile Ser
 850 855 860
 Ser Gly Leu Asp Gly Thr Ser Phe Arg Gly Pro Phe Arg Gly Asn Phe
 865 870 875 880

Glu Glu Leu Ile His Leu Glu Glu Arg Leu Gly Asn Val Asn Arg Gly
 885 890 895
 Ala Ser Gln Gly Thr Ile Glu Arg Cys Thr Tyr Pro His Lys Tyr Lys
 900 905 910
 Lys Val Thr Thr Asp Trp Phe Ser Gln Arg Lys Leu His Cys Lys Gln
 915 920 925
 Asp Gly Glu Glu Gly Thr Glu Glu Asp Thr Glu Glu Lys Cys Thr Ile
 930 935 940
 Cys Leu Ser Ile Leu Glu Glu Gly Glu Asp Val Arg Arg Leu Pro Cys
 945 950 955 960
 Met His Leu Phe His Gln Val Cys Val Asp Gln Trp Leu Val Thr Asn
 965 970 975
 Lys Lys Cys Pro Ile Cys Arg Val Asp Ile Glu Ala Gln Leu Pro Ser
 980 985 990
 Glu Ser

<210> 4825

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4825

Met Glu Gln Ser Trp Thr Glu Asn Asp Phe Asp Glu Leu Arg Glu Glu
 1 5 10 15
 Gly Phe Arg Arg Ser Asn Tyr Glu Leu Gln Glu Glu Ile Gln Ile Lys
 20 25 30
 Gly Lys Glu Val Lys Asn Phe Glu Lys Asn Leu Asp Glu Cys Ile Thr
 35 40 45
 Arg Ile Thr Asn Thr Glu Lys Cys Leu Glu Asp Leu Met Glu Leu Lys
 50 55 60
 Ala Lys Ala Arg Glu Leu Cys Glu Glu Cys Arg Ser Leu Arg Ser Arg
 65 70 75 80
 Cys Asp Gln Leu Glu Glu Arg Val Ser Val Met Glu Asp Glu Met Asn
 85 90 95

Glu Met Lys Gln Glu Gly Lys Phe Arg
 100 105

<210> 4826

<211> 136

<212> PRT

<213> Homo sapiens

<400> 4826

Met Trp Leu Glu Val Arg Ala Leu Leu Leu Ser Cys Val Arg Val Phe
 1 5 10 15
 Gln His Gly Thr Asp Gly Ser Ser Gly His Ser Leu Ser Gln Gly Leu
 20 25 30
 Ala Arg Leu Arg His Asp Gly Pro Ser Pro Ala Leu Thr Thr Thr Lys
 35 40 45
 Ser Gly Arg Val Glu Phe Ala Val Asn Ser Ala Val Pro Met Glu Thr
 50 55 60
 Cys Val Val Ser Glu Gln Gln Tyr Leu Leu Glu Leu Val Gln Thr Pro
 65 70 75 80
 Arg Leu Pro Ser Gly Thr Thr Trp Ser Thr Ser Pro Arg Glu Ala Ala
 85 90 95
 Ala Leu Arg Gly Cys Pro Ala Gln Trp Pro Leu Ser Arg Val Ser Leu
 100 105 110
 Gln Glu Ala Ser Glu Gln Ser Leu Lys Pro Gly Met Ala Pro Ser Pro
 115 120 125
 Cys Cys His His Cys Val Leu Thr
 130 135

<210> 4827

<211> 250

<212> PRT

<213> Homo sapiens

<400> 4827

Met Ala Glu Gly Gly Ala Ser Lys Gly Gly Gly Glu Glu Pro Gly Lys
 1 5 10 15
 Leu Pro Glu Pro Ala Glu Glu Glu Ser Gln Val Leu Arg Gly Thr Gly
 20 25 30
 His Cys Lys Trp Phe Asn Val Arg Met Gly Phe Gly Phe Ile Ser Met
 35 40 45
 Ile Asn Arg Glu Gly Ser Pro Leu Asp Ile Pro Val Asp Val Phe Val
 50 55 60
 His Gln Ser Lys Leu Phe Met Glu Gly Phe Arg Ser Leu Lys Glu Gly
 65 70 75 80
 Glu Pro Val Glu Phe Thr Phe Lys Lys Ser Ser Lys Gly Leu Glu Ser
 85 90 95
 Ile Arg Val Thr Gly Pro Gly Gly Ser Pro Cys Leu Gly Ser Glu Arg
 100 105 110
 Arg Pro Lys Gly Lys Thr Leu Gln Lys Arg Lys Pro Lys Gly Asp Arg
 115 120 125
 Cys Tyr Asn Cys Gly Gly Leu Asp His His Ala Lys Glu Cys Ser Leu
 130 135 140
 Pro Pro Gln Pro Lys Lys Cys His Tyr Cys Gln Ser Ile Met His Met
 145 150 155 160
 Val Ala Asn Cys Pro His Lys Asn Val Ala Gln Pro Pro Ala Ser Ser
 165 170 175
 Gln Gly Arg Gln Glu Ala Glu Ser Gln Pro Cys Thr Ser Thr Leu Pro
 180 185 190
 Arg Glu Val Gly Gly Gly His Gly Cys Thr Ser Pro Pro Phe Pro Gln
 195 200 205
 Glu Ala Arg Ala Glu Ile Ser Glu Arg Ser Gly Arg Ser Pro Gln Glu
 210 215 220
 Ala Ser Ser Thr Lys Ser Ser Ile Ala Pro Glu Glu Gln Ser Lys Lys
 225 230 235 240
 Gly Pro Ser Val Gln Lys Arg Lys Lys Thr
 245 250

<210> 4828

<211> 748

<212> PRT

<213> Homo sapiens

<400> 4828

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Met Lys Gln Met His Glu Trp Asn Phe Thr Ala Ser Ser Ile Lys Gly
  1             5             10             15
Ile Ser Leu Ser Lys Phe Asp Glu Arg Cys Cys Phe Leu Tyr Val His
      20             25             30
Asp Asn Ser Asp Asp Phe Gln Ile Tyr Phe Ser Thr Glu Glu Gln Cys
      35             40             45
Ser Arg Phe Phe Ser Leu Val Lys Glu Met Ile Thr Asn Thr Ala Gly
      50             55             60
Ser Thr Val Glu Leu Glu Gly Glu Thr Asp Gly Asp Thr Leu Glu Tyr
      65             70             75             80
Glu Tyr Asp His Asp Ala Asn Gly Glu Arg Val Val Leu Gly Lys Gly
      85             90             95
Thr Tyr Gly Ile Val Tyr Ala Gly Arg Asp Leu Ser Asn Gln Val Arg
      100            105            110
Ile Ala Ile Lys Glu Ile Pro Glu Arg Asp Ser Arg Tyr Ser Gln Pro
      115            120            125
Leu His Glu Glu Ile Ala Leu His Lys Tyr Leu Lys His Arg Asn Ile
      130            135            140
Val Gln Tyr Leu Gly Ser Val Ser Glu Asn Gly Tyr Ile Lys Ile Phe
      145            150            155            160
Met Glu Gln Val Pro Gly Gly Ser Leu Ser Ala Leu Leu Arg Ser Lys
      165            170            175
Trp Gly Pro Met Lys Glu Pro Thr Ile Lys Phe Tyr Thr Lys Gln Ile
      180            185            190
Leu Glu Gly Leu Lys Tyr Leu His Glu Asn Gln Ile Val His Arg Asp
      195            200            205
Ile Lys Gly Asp Asn Val Leu Val Asn Thr Tyr Ser Gly Val Val Lys
      210            215            220
Ile Ser Asp Phe Gly Thr Ser Lys Arg Leu Ala Gly Val Asn Pro Cys
      225            230            235            240
Thr Glu Thr Phe Thr Gly Thr Leu Gln Tyr Met Ala Pro Glu Ile Ile
      245            250            255

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Asp Gln Gly Pro Arg Gly Tyr Gly Ala Pro Ala Asp Ile Trp Ser Leu
 260 265 270
 Gly Cys Thr Ile Ile Glu Met Ala Thr Ser Lys Pro Pro Phe His Glu
 275 280 285
 Leu Gly Glu Pro Gln Ala Ala Met Phe Lys Val Gly Met Phe Lys Ile
 290 295 300
 His Pro Glu Ile Pro Glu Ala Leu Ser Ala Glu Ala Arg Ala Phe Ile
 305 310 315 320
 Leu Ser Cys Phe Glu Pro Asp Pro His Lys Arg Ala Thr Thr Ala Glu
 325 330 335
 Leu Leu Arg Glu Gly Phe Leu Arg Gln Val Asn Lys Gly Lys Lys Asn
 340 345 350
 Arg Ile Ala Phe Lys Pro Ser Glu Gly Pro Arg Gly Val Val Leu Ala
 355 360 365
 Leu Pro Thr Gln Gly Glu Pro Met Ala Thr Ser Ser Ser Glu His Gly
 370 375 380
 Ser Val Ser Pro Asp Ser Asp Ala Gln Pro Asp Ala Leu Phe Glu Arg
 385 390 395 400
 Thr Arg Ala Pro Arg His His Leu Gly His Leu Leu Ser Val Pro Asp
 405 410 415
 Glu Ser Ser Ala Leu Glu Asp Arg Gly Leu Ala Ser Ser Pro Glu Asp
 420 425 430
 Arg Asp Gln Gly Leu Phe Leu Leu Arg Lys Asp Ser Glu Arg Arg Ala
 435 440 445
 Ile Leu Tyr Lys Ile Leu Trp Glu Glu Gln Asn Gln Val Ala Ser Asn
 450 455 460
 Leu Gln Glu Cys Val Ala Gln Ser Ser Glu Glu Leu His Leu Ser Val
 465 470 475 480
 Gly His Ile Lys Gln Ile Ile Gly Ile Leu Arg Asp Phe Ile Arg Ser
 485 490 495
 Pro Glu His Arg Val Met Ala Thr Thr Ile Ser Lys Leu Lys Val Asp
 500 505 510
 Leu Asp Phe Asp Ser Ser Ser Ile Ser Gln Ile His Leu Val Leu Phe
 515 520 525
 Gly Phe Gln Asp Ala Val Asn Lys Ile Leu Arg Asn His Leu Ile Arg

530	535	540	
Pro His Trp Met Phe Ala Met Asp Asn Ile Ile Arg Arg Ala Val Gln			
545	550	555	560
Ala Ala Val Thr Ile Leu Ile Pro Glu Leu Arg Ala His Phe Glu Pro			
	565	570	575
Thr Cys Glu Thr Glu Gly Val Asp Lys Asp Met Asp Glu Ala Glu Glu			
	580	585	590
Gly Tyr Pro Pro Ala Thr Gly Pro Gly Gln Glu Ala Gln Pro His Gln			
595	600	605	
Gln His Leu Ser Leu Gln Leu Gly Glu Leu Arg Gln Glu Thr Asn Arg			
610	615	620	
Leu Leu Glu His Leu Val Glu Lys Glu Arg Glu Tyr Gln Asn Leu Leu			
625	630	635	640
Arg Gln Thr Leu Glu Gln Lys Thr Gln Glu Leu Tyr His Leu Gln Leu			
	645	650	655
Lys Leu Lys Ser Asn Cys Ile Thr Glu Asn Pro Ala Gly Pro Tyr Gly			
660	665	670	
Gln Arg Thr Asp Lys Glu Leu Ile Asp Trp Leu Arg Leu Gln Gly Ala			
675	680	685	
Asp Ala Lys Thr Ile Glu Lys Ile Val Glu Glu Gly Tyr Thr Leu Ser			
690	695	700	
Asp Ile Leu Asn Glu Ile Thr Lys Glu Asp Leu Arg Tyr Leu Arg Leu			
705	710	715	720
Arg Gly Gly Leu Leu Cys Arg Leu Trp Ser Ala Val Ser Gln Tyr Arg			
	725	730	735
Arg Ala Gln Glu Ala Ser Glu Thr Lys Asp Lys Ala			
740	745		

<210> 4829

<211> 572

<212> PRT

<213> Homo sapiens

<400> 4829

Met Cys His Phe Lys Leu Val Ala Ile Val Gly Tyr Leu Ile Arg Leu

1	5	10	15
Ser Ile Lys	Ser Ile Gln Ile Glu Ala Asp Asn Cys Val Thr Asp Ser		
20	25	30	
Leu Thr Ile Tyr Asp Ser Leu Leu Pro Ile Arg Ser Ser Ile Leu Tyr			
35	40	45	
Arg Ile Cys Glu Pro Thr Arg Thr Leu Met Ser Phe Val Ser Thr Asn			
50	55	60	
Asn Leu Met Leu Val Thr Phe Lys Ser Pro His Ile Arg Arg Leu Ser			
65	70	75	80
Gly Ile Arg Ala Tyr Phe Glu Val Ile Pro Glu Gln Lys Cys Glu Asn			
85	90	95	
Thr Val Leu Val Lys Asp Ile Thr Gly Phe Glu Gly Lys Ile Ser Ser			
100	105	110	
Pro Tyr Tyr Pro Ser Tyr Tyr Pro Pro Lys Cys Lys Cys Thr Trp Lys			
115	120	125	
Phe Gln Thr Ser Leu Ser Thr Leu Gly Ile Ala Leu Lys Phe Tyr Asn			
130	135	140	
Tyr Ser Ile Thr Lys Lys Ser Met Lys Gly Cys Glu His Gly Trp Trp			
145	150	155	160
Glu Ile Asn Glu His Met Tyr Cys Gly Ser Tyr Met Asp His Gln Thr			
165	170	175	
Ile Phe Arg Val Pro Ser Pro Leu Val His Ile Gln Leu Gln Cys Ser			
180	185	190	
Ser Arg Leu Ser Asp Lys Pro Leu Leu Ala Glu Tyr Gly Ser Tyr Asn			
195	200	205	
Ile Ser Gln Pro Cys Pro Val Gly Ser Phe Arg Cys Ser Ser Gly Leu			
210	215	220	
Cys Val Pro Gln Ala Gln Arg Cys Asp Gly Val Asn Asp Cys Phe Asp			
225	230	235	240
Glu Ser Asp Glu Leu Phe Cys Val Ser Pro Gln Pro Ala Cys Asn Thr			
245	250	255	
Ser Ser Phe Arg Gln His Gly Pro Leu Ile Cys Asp Gly Phe Arg Asp			
260	265	270	
Cys Glu Asn Gly Arg Asp Glu Gln Asn Cys Thr Gln Ser Ile Pro Cys			
275	280	285	
Asn Asn Arg Thr Phe Lys Cys Gly Asn Asp Ile Cys Phe Arg Lys Gln			

290	295	300	
Asn Ala Lys Cys Asp Gly Thr Val Asp Cys Pro Asp Gly Ser Asp Glu			
305	310	315	320
Glu Gly Cys Thr Cys Ser Arg Ser Ser Ser Ala Leu His Arg Ile Ile			
	325	330	335
Gly Gly Thr Asp Thr Leu Glu Gly Gly Trp Pro Trp Gln Val Ser Leu			
	340	345	350
His Phe Val Gly Ser Ala Tyr Cys Gly Ala Ser Val Ile Ser Arg Glu			
	355	360	365
Trp Leu Leu Ser Ala Ala His Cys Phe His Gly Asn Arg Leu Ser Asp			
	370	375	380
Pro Thr Pro Trp Thr Ala His Leu Gly Met Tyr Val Gln Gly Asn Ala			
385	390	395	400
Lys Phe Val Ser Pro Val Arg Arg Ile Val Val His Glu Tyr Tyr Asn			
	405	410	415
Ser Gln Thr Phe Asp Tyr Asp Ile Ala Leu Leu Gln Leu Ser Ile Ala			
	420	425	430
Trp Pro Glu Thr Leu Lys Gln Leu Ile Gln Pro Ile Cys Ile Pro Pro			
	435	440	445
Thr Gly Gln Arg Val Arg Ser Gly Glu Lys Cys Trp Val Thr Gly Trp			
	450	455	460
Gly Arg Arg His Glu Ala Asp Asn Lys Gly Ser Leu Val Leu Gln Gln			
465	470	475	480
Ala Glu Val Glu Leu Ile Asp Gln Thr Leu Cys Val Ser Thr Tyr Gly			
	485	490	495
Ile Ile Thr Ser Arg Met Leu Cys Ala Gly Ile Met Ser Gly Lys Arg			
	500	505	510
Asp Ala Cys Lys Gly Asp Ser Gly Gly Pro Leu Ser Cys Arg Arg Lys			
	515	520	525
Ser Asp Gly Lys Trp Ile Leu Thr Gly Ile Val Ser Trp Gly His Gly			
	530	535	540
Cys Gly Arg Pro Asn Phe Pro Gly Val Tyr Thr Arg Val Ser Asn Phe			
545	550	555	560
Val Pro Trp Ile His Lys Tyr Val Pro Ser Leu Leu			
	565	570	

<210> 4830

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4830

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Met Val Gly Leu Leu Phe His Ala Pro Lys Ala Pro Glu Met Ala Pro
  1             5             10            15
Leu Arg Cys Cys Ile Met Asn Lys Ile Ile Met Val Arg Arg Pro Lys
          20             25            30
Gln Ser Thr Ala Asp Tyr Gly Met Arg Thr Ser Gly Pro Val Glu Ser
      35             40            45
Gly Leu Ser Ala Asp Ser Leu Gln Leu Leu Cys Ser Tyr Ala Ala Ile
      50             55            60
Lys Asn Ser Ala Glu Leu Leu Met Val Gly Pro Gln Gly Met Arg Pro
      65             70            75            80
Ala Thr Gly Gln Asp Leu Leu Cys Arg Pro Cys Leu Ser His Asp Leu
          85             90            95
Pro Gly Pro Leu His Pro Pro Arg Gly Leu Ser Gly Ser Ser Ser Leu
          100            105            110
Leu Ile Ser Pro Arg Leu Gln Asp Val Ser Leu Gln Leu Val His Pro
          115            120            125
Thr Pro Glu Glu Ser Phe
      130

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<210> 4831

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4831

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Met Pro Phe Arg Lys Ala Cys Gly Pro Lys Leu Thr Asn Ser Pro Thr
  1             5             10            15
Val Ile Val Met Val Gly Leu Pro Ala Arg Gly Lys Thr Tyr Ile Ser

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20 25 30
 Lys Lys Leu Thr Arg Tyr Leu Tyr Trp Ile Gly Val Pro Thr Lys Val
 35 40 45
 Phe Asn Val Gly Glu Tyr Arg Arg Glu Ala Val Lys Gln Tyr Ser Ser
 50 55 60
 Tyr Asn Phe Phe Arg Pro Asp Asn Glu Glu Ala Met Lys Val Arg Lys
 65 70 75 80
 Gln Cys Ala Leu Ala Ala Leu Arg Asp Val Lys Ser Tyr Leu Ala Lys
 85 90 95
 Glu Gly Gly Gln Ile Ala Val Phe Asp Ala Thr Asn Thr Thr Arg Glu
 100 105 110
 Arg Arg His Met Ile Leu His Phe Ala Lys Glu Asn Asp Phe Lys Ala
 115 120 125
 Phe Phe Ile Glu Ser Val Cys Asp Asp Pro Thr Val Val Ala Ser Asn
 130 135 140
 Ile Met Gln Lys Ala Phe Gln Arg Asp Leu Ser Ala Thr Pro Leu Trp
 145 150 155 160
 Cys Cys Arg Lys Leu Lys Ser Pro Ala Arg Ile Thr Lys Thr Ala Thr
 165 170 175
 Arg Gln Lys Pro Trp Thr Thr Ser
 180

<210> 4832

<211> 493

<212> PRT

<213> Homo sapiens

<400> 4832

Met Gly Pro Thr Ser Val Leu Arg Ala Gly Leu Thr Pro Ser Cys Leu
 1 5 10 15
 Pro Pro Pro Ser Gly Ala Thr Asn Gly Ser Val Ser Pro Leu Gly Arg
 20 25 30
 Ala Gln Arg Val Trp Thr Glu Pro Gly Gly Arg Gly Leu His Gly Ala
 35 40 45
 Thr Ala Ala Gly Pro Val Ala Ala Ala Cys Pro Leu Leu Ala Val Thr

50	55	60
Ala Thr Ala Pro Gly Gln Pro Ser Gly Ala Ser Thr Val Trp Val Arg		
65	70	75
Glu Gly Gly Thr Ala Pro Ala Thr Arg Met Thr Val Pro Leu Ala Pro		
85	90	95
Arg Thr Ser Glu Lys Cys Ser Val Leu Asn Leu Thr Ala Ser Leu Ser		
100	105	110
Val Gly Asn Ser Thr Ser Gly Lys Arg Thr Gly Glu Ala Cys Ser Leu		
115	120	125
Thr Cys Leu Ala Glu Gly Phe Asn Phe Tyr Thr Glu Arg Ala Ala Ala		
130	135	140
Val Val Asp Gly Thr Pro Cys Arg Pro Asp Thr Val Asp Ile Cys Val		
145	150	155
Ser Gly Glu Cys Lys His Val Gly Cys Asp Arg Val Leu Gly Ser Asp		
165	170	175
Leu Arg Glu Asp Lys Cys Arg Val Cys Gly Gly Asp Gly Ser Ala Cys		
180	185	190
Glu Thr Ile Glu Gly Val Phe Ser Pro Ala Ser Pro Gly Ala Gly Tyr		
195	200	205
Glu Asp Val Val Trp Ile Pro Lys Gly Ser Val His Ile Phe Ile Gln		
210	215	220
Asp Leu Asn Leu Ser Leu Asn His Leu Ala Leu Lys Gly Asp Gln Glu		
225	230	235
Ser Leu Leu Leu Glu Gly Leu Pro Gly Thr Pro Gln Pro His Arg Leu		
245	250	255
Pro Leu Ala Gly Thr Thr Phe Gln Leu Arg Gln Gly Pro Asp Gln Val		
260	265	270
Gln Ser Leu Glu Ala Leu Gly Pro Ile Asn Ala Ser Leu Ile Val Met		
275	280	285
Val Leu Ala Arg Thr Glu Leu Pro Ala Leu Arg Tyr Arg Phe Asn Ala		
290	295	300
Pro Ile Ala Arg Asp Ser Leu Pro Pro Tyr Ser Trp His Tyr Ala Pro		
305	310	315
Trp Thr Arg Cys Ser Ala Gln Cys Ala Gly Gly Ser Gln Val Gln Ala		
325	330	335

Val Glu Cys Arg Asn Gln Leu Asp Gly Ser Ala Val Ala Pro His Tyr
 340 345 350
 Cys Ser Ala His Ser Lys Leu Pro Lys Arg Gln Arg Ala Cys Asn Thr
 355 360 365
 Glu Pro Cys Pro Pro Asp Trp Val Val Gly Asn Trp Ser Leu Cys Ser
 370 375 380
 Arg Ser Cys Asp Ala Gly Val Arg Ser Arg Ser Val Val Cys Gln Arg
 385 390 395 400
 Arg Val Ser Ala Ala Glu Glu Lys Ala Leu Asp Asp Ser Ala Cys Pro
 405 410 415
 Gln Pro Arg Pro Pro Val Leu Glu Ala Cys His Gly Pro Thr Cys Pro
 420 425 430
 Pro Glu Trp Ala Ala Leu Asp Trp Ser Glu Cys Thr Pro Ser Cys Gly
 435 440 445
 Pro Gly Leu Arg His Arg Val Val Leu Cys Lys Ser Ala Asp His Arg
 450 455 460
 Ala Thr Leu Pro Pro Ala His Cys Ser Pro Ala Ala Lys Pro Pro Ala
 465 470 475 480
 Thr Met Arg Cys Asn Leu Arg Arg Cys Pro Pro Ala Arg
 485 490

<210> 4833

<211> 803

<212> PRT

<213> Homo sapiens

<400> 4833

Met Ile Ser Ala Gln Cys Asn Leu Cys Leu Pro Gly Ser Gly Asp Ser
 1 5 10 15
 Cys Ala Ser Gly Ser Gln Leu Ala Gly Thr Thr Val Ala Gly Pro Ala
 20 25 30
 His Pro Glu Ser Leu Thr Leu Cys Ser Gly Glu Ala Glu Arg Arg Gly
 35 40 45
 Lys Glu Glu Trp Pro Asp Ser His His Tyr Pro Gly Pro Thr Pro Ala
 50 55 60

Pro Glu Ser Ser Asp Gly Pro His Lys Val Thr Val Leu Ala Thr Met
 65 70 75 80
 Leu Ser Ser Arg Trp Trp Pro Ser Ser Trp Gly Ile Leu Gly Leu Gly
 85 90 95
 Pro Arg Ser Pro Pro Arg Gly Ser Gln Leu Cys Ala Leu Tyr Ala Phe
 100 105 110
 Thr Tyr Thr Gly Ala Asp Gly Gln Gln Val Ser Leu Ala Glu Gly Asp
 115 120 125
 Arg Phe Leu Leu Leu Arg Lys Thr Asn Ser Asp Trp Trp Leu Ala Arg
 130 135 140
 Arg Leu Glu Ala Pro Ser Thr Ser Arg Pro Ile Phe Val Pro Ala Ala
 145 150 155 160
 Tyr Met Ile Glu Glu Ser Ile Pro Ser Gln Ser Pro Thr Thr Val Ile
 165 170 175
 Pro Gly Gln Leu Leu Trp Thr Pro Gly Pro Lys Leu Phe His Gly Ser
 180 185 190
 Leu Glu Glu Leu Ser Gln Ala Leu Pro Ser Arg Ala Gln Ala Ser Ser
 195 200 205
 Glu Gln Pro Pro Pro Leu Pro Arg Lys Met Cys Arg Ser Val Ser Thr
 210 215 220
 Asp Asn Leu Ser Pro Ser Leu Leu Lys Pro Phe Gln Glu Gly Pro Ser
 225 230 235 240
 Gly Arg Ser Leu Ser Gln Glu Asn Leu Pro Pro Glu Ala Ser Ala Ser
 245 250 255
 Thr Ala Gly Pro Gln Pro Leu Met Ser Glu Pro Pro Val Tyr Cys Asn
 260 265 270
 Leu Val Asp Leu Arg Arg Cys Pro Arg Ser Pro Pro Pro Gly Pro Ala
 275 280 285
 Cys Pro Leu Leu Gln Arg Pro Asp Ala Trp Glu Gln His Leu Asp Pro
 290 295 300
 Asn Ser Gly Arg Cys Phe Tyr Ile Asn Ser Leu Thr Gly Cys Lys Ser
 305 310 315 320
 Trp Lys Pro Pro Arg Arg Ser Arg Ser Glu Thr Asn Pro Gly Ser Met
 325 330 335
 Glu Gly Thr Gln Thr Leu Lys Arg Asn Asn Asp Val Leu Gln Pro Gln
 340 345 350

Ala Lys Gly Phe Arg Ser Asp Thr Gly Thr Pro Glu Pro Leu Asp Pro
 355 360 365
 Gln Gly Ser Leu Ser Leu Ser Gln Arg Thr Ser Gln Leu Asp Pro Pro
 370 375 380
 Ala Leu Gln Ala Pro Arg Pro Leu Pro Gln Leu Leu Asp Asp Pro His
 385 390 395 400
 Glu Val Glu Lys Ser Gly Leu Leu Asn Met Thr Lys Ile Ala Gln Gly
 405 410 415
 Gly Arg Lys Leu Arg Lys Asn Trp Gly Pro Ser Trp Val Val Leu Thr
 420 425 430
 Gly Asn Ser Leu Val Phe Tyr Arg Glu Pro Pro Pro Thr Ala Pro Ser
 435 440 445
 Ala Gly Trp Gly Pro Ala Gly Ser Arg Pro Glu Ser Ser Val Asp Leu
 450 455 460
 Arg Gly Ala Ala Leu Ala His Gly Arg His Leu Ser Ser Arg Arg Asn
 465 470 475 480
 Val Leu His Ile Arg Thr Ile Pro Gly His Glu Phe Leu Leu Gln Ser
 485 490 495
 Asp His Glu Thr Glu Leu Arg Ala Trp His Arg Ala Leu Arg Thr Val
 500 505 510
 Ile Glu Arg Leu Asp Arg Glu Asn Pro Leu Glu Leu Arg Leu Ser Gly
 515 520 525
 Ser Gly Pro Ala Glu Leu Ser Ala Gly Glu Asp Glu Glu Glu Glu Ser
 530 535 540
 Glu Leu Val Ser Lys Pro Leu Leu Arg Leu Ser Ser Arg Arg Ser Ser
 545 550 555 560
 Ile Arg Gly Pro Glu Gly Thr Glu Gln Asn Arg Val Arg Asn Lys Leu
 565 570 575
 Lys Arg Leu Ile Ala Lys Arg Pro Pro Leu Gln Ser Leu Gln Glu Arg
 580 585 590
 Gly Leu Leu Arg Asp Gln Val Phe Gly Cys Gln Leu Glu Ser Leu Cys
 595 600 605
 Gln Arg Glu Gly Asp Thr Val Pro Ser Phe Leu Arg Leu Cys Ile Ala
 610 615 620
 Ala Val Asp Lys Arg Gly Leu Asp Val Asp Gly Ile Tyr Arg Val Ser
 625 630 635 640

Gly Asn Leu Ala Val Val Gln Lys Leu Arg Phe Leu Val Asp Arg Glu
 645 650 655
 Arg Ala Val Thr Ser Asp Gly Arg Tyr Val Phe Pro Glu Gln Pro Gly
 660 665 670
 Gln Glu Gly Arg Leu Asp Leu Asp Ser Thr Glu Trp Asp Asp Ile His
 675 680 685
 Val Val Thr Gly Ala Leu Lys Leu Phe Leu Arg Glu Leu Pro Gln Pro
 690 695 700
 Leu Val Pro Pro Leu Leu Leu Pro His Phe Arg Ala Ala Leu Ala Leu
 705 710 715 720
 Ser Gln Ile Gln Glu Leu Ile Gly Ser Met Pro Lys Pro Asn His Asp
 725 730 735
 Thr Leu Arg Tyr Leu Leu Glu His Leu Cys Arg Val Ile Ala His Ser
 740 745 750
 Asp Lys Asn Arg Met Thr Pro His Asn Leu Gly Ile Val Phe Gly Pro
 755 760 765
 Thr Leu Phe Arg Pro Glu Gln Glu Thr Ser Asp Pro Ala Ala His Ala
 770 775 780
 Leu Tyr Pro Gly Gln Leu Val Gln Leu Met Leu Thr Asn Phe Thr Ser
 785 790 795 800
 Leu Phe Pro

<210> 4834

<211> 892

<212> PRT

<213> Homo sapiens

<400> 4834

Met Gln Asp Leu Lys Lys Tyr Lys Lys Lys Lys Gln Lys Arg Met Lys
 1 5 10 15
 Ser Arg Lys Val Arg Lys Pro Thr Glu Asn Gln Glu Lys Asn Ile Arg
 20 25 30
 Lys Arg Glu Arg Arg Lys Lys Ser Lys Arg Arg Lys Arg Glu Lys His
 35 40 45

Lys His Asn Ser Pro Ser Ser Asp Asp Ser Ser Asp Tyr Ser Leu Asp
 50 55 60
 Ser Asp Val Glu His Thr Glu Ser Ser His Lys Lys Arg Thr Gly Phe
 65 70 75 80
 Tyr Arg Asp Tyr Asp Ile Pro Phe Thr Gln Arg Gly His Ile Ser Gly
 85 90 95
 Ser Tyr Ile Thr Ser Lys Lys Gly Gln His Asn Lys Lys Phe Lys Ser
 100 105 110
 Lys Glu Tyr Asp Glu Tyr Ser Thr Tyr Ser Asp Asp Asn Phe Gly Asn
 115 120 125
 Tyr Ser Asp Asp Asn Phe Gly Asn Tyr Gly Gln Glu Thr Glu Glu Asp
 130 135 140
 Phe Ala Asn Gln Leu Lys Gln Tyr Arg Gln Ala Lys Glu Thr Ser Asn
 145 150 155 160
 Ile Ala Leu Gly Ser Ser Phe Ser Lys Glu Ser Gly Lys Lys Gln Arg
 165 170 175
 Met Lys Gly Val Gln Gln Gly Ile Glu Gln Arg Val Lys Ser Phe Asn
 180 185 190
 Val Gly Arg Gly Arg Gly Leu Pro Lys Lys Ile Lys Arg Lys Glu Arg
 195 200 205
 Gly Gly Arg Thr Asn Lys Gly Pro Asn Val Phe Ser Val Ser Asp Asp
 210 215 220
 Phe Gln Glu Tyr Asn Lys Pro Gly Lys Lys Trp Lys Val Met Thr Gln
 225 230 235 240
 Glu Phe Ile Asn Gln His Thr Val Glu His Lys Gly Lys Gln Ile Cys
 245 250 255
 Lys Tyr Phe Leu Glu Gly Arg Cys Ile Lys Gly Asp Gln Cys Lys Phe
 260 265 270
 Asp His Asp Ala Glu Leu Glu Lys Arg Lys Glu Ile Cys Lys Phe Tyr
 275 280 285
 Leu Gln Gly Tyr Cys Thr Lys Gly Glu Asn Cys Ile Tyr Met His Asn
 290 295 300
 Glu Phe Pro Cys Lys Phe Tyr His Ser Gly Ala Lys Cys Tyr Gln Gly
 305 310 315 320
 Asp Asn Cys Lys Phe Ser His Asp Asp Leu Thr Lys Glu Thr Lys Lys
 325 330 335

Leu Leu Asp Lys Val Leu Asn Thr Asp Glu Glu Leu Ile Asn Glu Asp
 340 345 350
 Glu Arg Glu Leu Glu Glu Leu Arg Lys Arg Gly Ile Thr Pro Leu Pro
 355 360 365
 Lys Pro Pro Pro Gly Val Gly Leu Leu Pro Thr Pro Pro Glu His Phe
 370 375 380
 Pro Phe Ser Asp Pro Glu Asp Asp Phe Gln Thr Asp Phe Ser Asp Asp
 385 390 395 400
 Phe Arg Lys Ile Pro Ser Leu Phe Glu Ile Val Val Lys Pro Thr Val
 405 410 415
 Asp Leu Ala His Lys Ile Gly Arg Lys Pro Pro Ala Phe Tyr Thr Ser
 420 425 430
 Ala Ser Pro Pro Gly Pro Gln Phe Gln Gly Ser Ser Pro His Pro Gln
 435 440 445
 His Ile Tyr Ser Ser Gly Ser Ser Pro Gly Pro Gly Pro Asn Met Ser
 450 455 460
 Gln Gly His Ser Ser Pro Val Met His Pro Gly Ser Pro Gly His His
 465 470 475 480
 Pro Cys Ala Gly Pro Pro Gly Leu Pro Val Pro Gln Ser Pro Pro Leu
 485 490 495
 Pro Pro Gly Pro Pro Glu Ile Val Gly Pro Gln Asn Gln Ala Gly Val
 500 505 510
 Leu Val Gln Pro Asp Thr Ser Leu Thr Pro Pro Ser Met Gly Gly Ala
 515 520 525
 Tyr His Ser Pro Gly Phe Pro Gly His Val Met Lys Val Pro Arg Glu
 530 535 540
 Asn His Cys Ser Pro Gly Ser Ser Tyr Gln Gln Ser Pro Gly Glu Met
 545 550 555 560
 Gln Leu Asn Thr Asn Tyr Glu Ser Leu Gln Asn Pro Ala Glu Phe Tyr
 565 570 575
 Asp Asn Tyr Tyr Ala Gln His Ser Ile His Asn Phe Gln Pro Pro Asn
 580 585 590
 Asn Ser Gly Asp Gly Met Trp His Gly Glu Phe Ala Gln Gln Gln Pro
 595 600 605
 Pro Val Val Gln Asp Ser Pro Asn His Gly Ser Gly Ser Asp Gly Ser
 610 615 620

<210> 4835

<211> 891

<212> PRT

<213> Homo sapiens

<400> 4835

Met Ala Leu Thr Gln Gly Pro Leu Thr Phe Arg Asp Val Ala Ile Glu
 1 5 10 15
 Phe Ser Gln Glu Glu Trp Lys Ser Leu Asp Pro Val Gln Lys Ala Leu
 20 25 30
 Tyr Trp Asp Val Met Leu Glu Asn Tyr Arg Asn Leu Val Phe Leu Gly
 35 40 45
 Ile Leu Pro Lys Cys Met Thr Lys Glu Leu Pro Pro Ile Gly Asn Ser
 50 55 60
 Asn Thr Gly Glu Lys Cys Gln Thr Val Thr Leu Glu Arg His Glu Cys
 65 70 75 80
 Tyr Asp Val Glu Asn Phe Tyr Leu Arg Glu Ile Gln Lys Asn Leu Gln
 85 90 95
 Asp Leu Glu Phe Gln Trp Lys Asp Gly Glu Ile Asn Tyr Lys Glu Val
 100 105 110
 Pro Met Thr Tyr Lys Asn Asn Leu Asn Gly Lys Arg Gly Gln His Ser
 115 120 125
 Gln Glu Asp Val Glu Asn Lys Cys Ile Glu Asn Gln Leu Thr Leu Ser
 130 135 140
 Phe Gln Ser Arg Leu Thr Glu Leu Gln Lys Phe Gln Thr Glu Gly Lys
 145 150 155 160
 Ile Tyr Glu Cys Asn Gln Ser Glu Lys Thr Val Asn Asn Ser Ser Leu
 165 170 175
 Val Ser Pro Leu Gln Arg Ile Leu Pro Ser Val Gln Thr Asn Ile Ser
 180 185 190
 Lys Lys Tyr Glu Asn Glu Phe Leu Gln Leu Ser Leu Pro Thr Gln Leu
 195 200 205
 Glu Lys Thr His Ile Arg Glu Lys Pro Tyr Ile Cys Lys Gly Cys Gly
 210 215 220
 Lys Ala Phe Arg Val Ser Ser Ser Leu Ile Asn His Gln Met Val His

225	230	235	240
Thr Thr Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe His			
	245	250	255
Arg Gly Ser Leu Leu Thr Ile His Gln Ile Val His Thr Arg Gly Lys			
	260	265	270
Pro Tyr Gln Cys Gly Val Cys Gly Lys Ile Phe Arg Gln Asn Ser Asp			
	275	280	285
Leu Val Asn His Arg Arg Ser His Thr Gly Glu Lys Pro Tyr Lys Cys			
	290	295	300
Asn Glu Cys Gly Lys Ser Phe Ser Gln Ser Tyr Asn Leu Ala Ile His			
305	310	315	320
Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly			
	325	330	335
Lys Thr Phe Lys Gln Gly Ser Cys Leu Thr Thr His Gln Ile Ile His			
	340	345	350
Thr Gly Glu Lys Pro Tyr Gln Cys Asp Ile Cys Gly Lys Val Phe Arg			
	355	360	365
Gln Asn Ser Asn Leu Val Asn His Gln Arg Ile His Thr Gly Glu Lys			
	370	375	380
Pro Tyr Lys Cys Asn Ile Cys Gly Lys Ser Phe Ser Gln Ser Ser Asn			
385	390	395	400
Leu Ala Thr His Gln Thr Val His Ser Gly Asn Lys Pro Tyr Lys Cys			
	405	410	415
Asp Glu Cys Gly Lys Thr Phe Lys Arg Ser Ser Ser Leu Thr Thr His			
	420	425	430
Gln Val Ile His Thr Gly Glu Lys Pro Tyr Thr Cys Asp Val Cys Asp			
	435	440	445
Lys Val Phe Ser Gln Arg Ser Gln Leu Ala Arg His Gln Arg Gly His			
	450	455	460
Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Ser			
465	470	475	480
Gln Thr Ser His Leu Val Gly His Arg Arg Ile His Thr Gly Glu Lys			
	485	490	495
Pro Tyr Lys Cys Asp Lys Cys Gly Lys Ala Phe Lys Gln Gly Ser Leu			
	500	505	510
Leu Thr Arg His Lys Ile Ile His Thr Arg Glu Lys Arg Tyr Gln Cys			

515	520	525
Gly Glu Cys Gly Lys Val Phe Ser Glu Asn Ser Cys Leu Val Arg His		
530	535	540
Leu Arg Ile His Thr Gly Glu Gln Pro Tyr Lys Cys Asn Val Cys Gly		
545	550	555
Lys Val Phe Asn Tyr Ser Gly Asn Leu Ser Ile His Lys Arg Ile Arg		
565	570	575
Thr Gly Glu Lys Pro Phe Gln Cys Asn Glu Cys Gly Thr Val Phe Arg		
580	585	590
Asn Tyr Ser Cys Leu Ala Arg His Leu Arg Ile His Thr Gly Gln Lys		
595	600	605
Pro Tyr Lys Cys Asn Val Cys Gly Lys Val Phe Asn Asp Ser Gly Asn		
610	615	620
Leu Ser Asn His Lys Arg Ile His Thr Gly Glu Lys Pro Phe Gln Cys		
625	630	635
Asn Glu Cys Gly Lys Val Phe Ser Tyr Tyr Ser Cys Leu Ala Arg His		
645	650	655
Arg Lys Ile His Ala Gly Glu Lys Pro Tyr Lys Cys Asn Asp Cys Gly		
660	665	670
Lys Ala Tyr Thr Gln Arg Ser Ser Leu Thr Lys His Leu Ile Ile His		
675	680	685
Thr Gly Glu Lys Pro Tyr Asn Cys Asn Glu Phe Gly Gly Ala Phe Ile		
690	695	700
Gln Ser Ser Lys Leu Ala Arg Tyr His Arg Asn Pro Thr Gly Glu Lys		
705	710	715
Pro His Lys Cys Ser His Cys Gly Arg Thr Phe Ser His Ile Thr Gly		
725	730	735
Leu Thr Tyr His Gln Arg Arg His Thr Gly Glu Met Pro Tyr Lys Cys		
740	745	750
Ile Glu Cys Gly Gln Val Phe Asn Ser Thr Ser Asn Leu Ala Arg His		
755	760	765
Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly		
770	775	780
Lys Val Phe Arg His Gln Ser Thr Leu Ala Arg His Arg Ser Ile His		
785	790	795
Thr Gly Glu Lys Pro Tyr Val Cys Ser Glu Cys Gly Lys Ala Phe Arg		

	805		810		815
Val Arg Ser Ile Leu Val Asn His Gln Lys Met His Thr Gly Asp Lys					
	820		825		830
Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ile Glu Arg Ser Lys					
	835		840		845
Leu Val Tyr His Gln Arg Asn His Thr Gly Glu Lys Pro Tyr Lys Cys					
	850		855		860
Ile Glu Cys Gly Lys Ala Phe Gly Arg Phe Ser Cys Leu Asn Lys His					
865		870		875	880
Gln Met Ile His Ser Gly Glu Lys Pro Tyr Lys					
	885		890		

<210> 4836

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4836

Met Ile Glu Tyr Gln Ile Pro Val Ser Phe Lys Asp Val Val Val Gly			
1	5	10	15
Phe Thr Gln Glu Glu Trp His Arg Leu Ser Pro Ala Gln Arg Ala Leu			
	20	25	30
Tyr Arg Asp Val Met Leu Glu Thr Tyr Ser Asn Leu Ala Ser Val Gly			
35		40	45
Tyr Glu Gly Thr Lys Pro Asp Val Ile Leu Arg Leu Glu Gln Glu Glu			
50	55	60	
Ala Pro Trp Ile Gly Glu Ala Ala Cys Pro Gly Cys His Cys Trp Glu			
65	70	75	80
Asp Ile Trp Arg Val Asn Ile Gln Arg Lys Arg Arg Gln Asp Met Leu			
	85	90	95
Leu Arg Pro Gly Ala Ala Ile Ser Lys Lys Thr Leu Pro Lys Glu Lys			
	100	105	110
Ser Cys Glu Tyr Asn Lys Phe Gly Lys Ile Ser Leu Leu Ser Thr Asp			
115	120	125	
Leu Phe Ser Ser Ile Gln Ser Pro Ser Asn Trp Asn Pro Cys Gly Lys			

130	135	140	
Asn Leu Asn His Asn Leu Asp Leu Ile Gly Phe Lys Arg Asn Cys Ala			
145	150	155	160
Lys Lys Gln Asp Glu Cys Tyr Ala Tyr Gly Lys Leu Leu Gln Arg Ile			
	165	170	175
Asn His Gly Arg Arg Pro Asn Gly Glu Lys Pro Arg Gly Cys Ser His			
	180	185	190
Cys Glu Lys Ala Phe Thr Gln Asn Pro Ala Leu Met Tyr Lys Pro Ala			
	195	200	205
Val Ser Asp Ser Leu Leu Tyr Lys Arg Lys Arg Val Pro Pro Thr Glu			
	210	215	220
Lys Pro His Val Cys Ser Glu Cys Gly Lys Ala Phe Cys Tyr Lys Ser			
225	230	235	240
Glu Phe Ile Arg His Gln Arg Ser His Thr Gly Glu Lys Pro Tyr Gly			
	245	250	255
Cys Thr Asp Cys Gly Lys Ala Phe Ser His Lys Ser Thr Leu Ile Lys			
	260	265	270
His Gln Arg Ile His Thr Gly Val Arg Pro Phe Glu Cys Phe Phe Cys			
	275	280	285
Gly Lys Ala Phe Thr Gln Lys Ser His Arg Thr Glu His Gln Arg Thr			
	290	295	300
His Thr Gly Glu Arg Pro Phe Val Cys Ser Glu Cys Gly Lys Ser Phe			
305	310	315	320
Gly Glu Lys Ser Tyr Leu Asn Val His Arg Lys Met His Thr Gly Glu			
	325	330	335
Arg Pro Tyr Arg Cys Arg Glu Cys Gly Lys Ser Phe Ser Gln Lys Ser			
	340	345	350
Cys Leu Asn Lys His Trp Arg Thr His Phe Gly Glu Ser Ser Leu Arg			
	355	360	365
Ser Lys Ser Ser Asn Thr			
370			

<210> 4837

<211> 896

<212> PRT

<213> Homo sapiens

<400> 4837

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Met Thr Glu Glu Ser Glu Glu Thr Val Leu Tyr Ile Glu His Arg Tyr
  1              5              10              15
Val Cys Ser Glu Cys Asn Gln Leu Tyr Gly Ser Leu Glu Glu Val Leu
      20              25              30
Met His Gln Asn Ser His Val Pro Gln Gln His Phe Glu Leu Val Gly
      35              40              45
Val Ala Asp Pro Gly Val Thr Val Ala Thr Asp Thr Ala Ser Gly Thr
      50              55              60
Gly Leu Tyr Gln Thr Leu Val Gln Glu Ser Gln Tyr Gln Cys Leu Glu
      65              70              75              80
Cys Gly Gln Leu Leu Met Ser Pro Ser Gln Leu Leu Glu His Gln Glu
      85              90              95
Leu His Leu Lys Met Met Ala Pro Gln Glu Ala Val Pro Ala Glu Pro
      100             105             110
Ser Pro Lys Ala Pro Pro Leu Ser Ser Ser Thr Ile His Tyr Glu Cys
      115             120             125
Val Asp Cys Lys Ala Leu Phe Ala Ser Gln Glu Leu Trp Leu Asn His
      130             135             140
Arg Gln Thr His Leu Arg Ala Thr Pro Thr Lys Ala Pro Ala Pro Val
      145             150             155             160
Val Leu Gly Ser Pro Val Val Leu Gly Pro Pro Val Gly Gln Ala Arg
      165             170             175
Val Ala Val Glu His Ser Tyr Arg Lys Ala Glu Glu Gly Gly Glu Gly
      180             185             190
Ala Thr Val Pro Ser Ala Ala Ala Thr Thr Thr Glu Val Val Thr Glu
      195             200             205
Val Glu Leu Leu Leu Tyr Lys Cys Ser Glu Cys Ser Gln Leu Phe Gln

      210             215             220
Leu Pro Ala Asp Phe Leu Glu His Gln Ala Thr His Phe Pro Ala Pro
      225             230             235             240
Val Pro Glu Ser Gln Glu Pro Ala Leu Gln Gln Glu Val Gln Ala Ser
      245             250             255

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Ser Pro Ala Glu Val Pro Val Ser Gln Pro Asp Pro Leu Pro Ala Ser
 260 265 270
 Asp His Ser Tyr Glu Leu Arg Asn Gly Glu Ala Ile Gly Arg Asp Arg
 275 280 285
 Arg Gly Arg Arg Ala Arg Arg Asn Asn Ser Gly Glu Ala Gly Gly Ala
 290 295 300
 Ala Thr Gln Glu Leu Phe Cys Ser Ala Cys Asp Gln Leu Phe Leu Ser
 305 310 315 320
 Pro His Gln Leu Gln Gln His Leu Arg Ser His Arg Glu Gly Val Phe
 325 330 335
 Lys Cys Pro Leu Cys Ser Arg Val Phe Pro Ser Pro Ser Ser Leu Asp
 340 345 350
 Gln His Leu Gly Asp His Ser Ser Glu Ser His Phe Leu Cys Val Asp
 355 360 365
 Cys Gly Leu Ala Phe Gly Thr Glu Ala Leu Leu Leu Ala His Arg Arg
 370 375 380
 Ala His Thr Pro Asn Pro Leu His Ser Cys Pro Cys Gly Lys Thr Phe
 385 390 395 400
 Val Asn Leu Thr Lys Phe Leu Tyr His Arg Arg Thr His Gly Val Gly
 405 410 415
 Gly Val Pro Leu Pro Thr Thr Pro Val Pro Pro Glu Glu Pro Val Ile
 420 425 430
 Gly Phe Pro Glu Pro Ala Pro Ala Glu Thr Gly Glu Pro Glu Ala Pro
 435 440 445
 Glu Pro Pro Val Ser Glu Glu Thr Ser Ala Gly Pro Ala Ala Pro Gly
 450 455 460
 Thr Tyr Arg Cys Leu Leu Cys Ser Arg Glu Phe Gly Lys Ala Leu Gln
 465 470 475 480
 Leu Thr Arg His Gln Arg Phe Val His Arg Leu Glu Arg Arg His Lys
 485 490 495
 Cys Ser Ile Cys Gly Lys Met Phe Lys Lys Lys Ser His Val Arg Asn
 500 505 510
 Arg Leu Arg Thr His Thr Gly Glu Arg Pro Phe Pro Cys Pro Asp Cys
 515 520 525
 Ser Lys Pro Phe Asn Ser Pro Ala Asn Leu Ala Arg His Arg Leu Thr
 530 535 540

His Thr Gly Glu Arg Pro Tyr Arg Cys Gly Asp Cys Gly Lys Ala Phe
 545 550 555 560
 Thr Gln Ser Ser Thr Leu Arg Gln His Arg Leu Val His Ala Gln His
 565 570 575
 Phe Pro Tyr Arg Cys Gln Glu Cys Gly Val Arg Phe His Arg Pro Tyr
 580 585 590
 Arg Leu Leu Met His Arg Tyr His His Thr Gly Glu Tyr Pro Tyr Lys
 595 600 605
 Cys Arg Glu Cys Pro Arg Ser Phe Leu Leu Arg Arg Leu Leu Glu Val
 610 615 620
 His Gln Leu Val Val His Ala Gly Arg Gln Pro His Arg Cys Pro Ser
 625 630 635 640
 Cys Gly Ala Ala Phe Pro Ser Ser Leu Arg Leu Arg Glu His Arg Cys
 645 650 655
 Ala Ala Ala Ala Ala Gln Ala Pro Arg Arg Phe Glu Cys Gly Thr Cys
 660 665 670
 Gly Lys Lys Val Gly Ser Ala Ala Arg Leu Gln Ala His Glu Ala Ala
 675 680 685
 His Ala Ala Ala Gly Pro Gly Glu Val Leu Ala Lys Glu Pro Pro Ala
 690 695 700
 Pro Arg Ala Pro Arg Ala Thr Arg Ala Pro Val Ala Ser Pro Ala Ala
 705 710 715 720
 Leu Gly Ser Thr Ala Thr Ala Ser Pro Ala Ala Pro Ala Arg Arg Arg
 725 730 735
 Gly Leu Glu Cys Ser Glu Cys Lys Lys Leu Phe Ser Thr Glu Thr Ser
 740 745 750
 Leu Gln Val His Arg Arg Ile His Thr Gly Glu Arg Pro Tyr Pro Cys
 755 760 765
 Pro Asp Cys Gly Lys Ala Phe Arg Gln Ser Thr His Leu Lys Asp His
 770 775 780
 Arg Arg Leu His Thr Gly Glu Arg Pro Phe Ala Cys Glu Val Cys Gly
 785 790 795 800
 Lys Ala Phe Ala Ile Ser Met Arg Leu Ala Glu His Arg Arg Ile His
 805 810 815
 Thr Gly Glu Arg Pro Tyr Ser Cys Pro Asp Cys Gly Lys Ser Tyr Arg
 820 825 830

Ser	Phe	Ser	Asn	Leu	Trp	Lys	His	Arg	Lys	Thr	His	Gln	Gln	Gln	His
835				840				845							
Gln	Ala	Ala	Val	Arg	Gln	Gln	Leu	Ala	Glu	Ala	Glu	Ala	Ala	Val	Gly
850				855				860							
Leu	Ala	Val	Met	Glu	Thr	Ala	Val	Glu	Ala	Leu	Pro	Leu	Val	Glu	Ala
865				870				875				880			
Ile	Glu	Ile	Tyr	Pro	Leu	Ala	Glu	Ala	Glu	Gly	Val	Gln	Ile	Ser	Gly
885				890				895							

<210> 4838

<211> 464

<212> PRT

<213> Homo sapiens

<400> 4838

Met	Phe	Glu	Asn	Glu	Ser	Arg	Lys	Ile	Phe	Ser	Glu	Met	Pro	Glu	Gly
1				5					10					15	
Glu	Ser	Ala	Gln	His	Ser	Asp	Gly	Glu	Ser	Asp	Phe	Glu	Arg	Asp	Ala
			20					25					30		
Gly	Ile	Gln	Arg	Leu	Gln	Gly	His	Thr	Pro	Gly	Glu	Asp	His	Gly	Glu
			35				40					45			
Val	Val	Ser	Gln	Asp	Arg	Glu	Val	Gly	Gln	Leu	Ile	Gly	Leu	Gln	Gly
	50					55				60					
Thr	Tyr	Leu	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Pro	Gln	Cys	Gly	Lys	Thr
65					70				75					80	
Phe	Ser	Pro	Lys	Ser	His	Leu	Ile	Thr	His	Glu	Arg	Thr	His	Thr	Gly
			85					90					95		
Glu	Lys	Tyr	Tyr	Lys	Cys	Asp	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Asp	Gly
		100					105				110				
Ser	Asn	Phe	Ser	Arg	His	Gln	Thr	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr
	115					120				125					
Lys	Cys	Arg	Asp	Cys	Gly	Lys	Ser	Phe	Ser	Arg	Ser	Ala	Asn	Leu	Ile
	130				135				140						
Thr	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Phe	Gln	Cys	Ala	Glu
145				150				155						160	

Cys Gly Lys Ser Phe Ser Arg Ser Pro Asn Leu Ile Ala His Gln Arg
 165 170 175
 Thr His Thr Gly Glu Lys Pro Tyr Ser Cys Pro Glu Cys Gly Lys Ser
 180 185 190
 Phe Gly Asn Arg Ser Ser Leu Asn Thr His Gln Gly Ile His Thr Gly
 195 200 205
 Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Glu Ser Phe Ser Tyr Asn
 210 215 220
 Ser Asn Leu Ile Arg His Gln Arg Ile His Thr Gly Glu Glu Pro Tyr
 225 230 235 240
 Lys Cys Thr Asp Cys Gly Gln Arg Phe Ser Gln Ser Ser Ala Leu Ile
 245 250 255
 Thr His Arg Arg Thr His Thr Gly Glu Lys Pro Tyr Gln Cys Ser Glu
 260 265 270
 Cys Gly Lys Ser Phe Ser Arg Ser Ser Asn Leu Ala Thr His Arg Arg
 275 280 285
 Thr His Met Val Glu Lys Pro Tyr Lys Cys Gly Val Cys Gly Lys Ser
 290 295 300
 Phe Ser Gln Ser Ser Ser Leu Ile Ala His Gln Gly Met His Thr Gly
 305 310 315 320
 Glu Lys Pro Tyr Glu Cys Leu Thr Cys Gly Glu Ser Phe Ser Trp Ser
 325 330 335
 Ser Asn Leu Leu Lys His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr
 340 345 350
 Lys Cys Ser Glu Cys Gly Lys Cys Phe Ser Gln Arg Ser Gln Leu Val
 355 360 365
 Val His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Leu Met
 370 375 380
 Cys Gly Lys Ser Phe Ser Arg Gly Ser Ile Leu Val Met His Gln Arg
 385 390 395 400
 Ala His Leu Gly Asp Lys Pro Tyr Arg Cys Pro Glu Cys Gly Lys Gly
 405 410 415
 Phe Ser Trp Asn Ser Val Leu Ile Ile His Gln Arg Ile His Thr Gly
 420 425 430
 Glu Lys Pro Tyr Lys Cys Pro Glu Cys Gly Lys Gly Phe Ser Asn Ser
 435 440 445

Ser Asn Phe Ile Thr His Gln Arg Thr His Met Lys Glu Lys Leu Tyr
 450 455 460

<210> 4839

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4839

Met Ser Gly Pro Gly Asn Lys Arg Ala Ala Gly Asp Gly Gly Ser Gly
 1 5 10 15
 Pro Pro Glu Lys Lys Leu Ser Arg Glu Glu Lys Thr Thr Thr Thr Leu
 20 25 30
 Ile Glu Pro Ile Arg Leu Gly Gly Ile Ser Ser Thr Glu Glu Met Asp
 35 40 45
 Leu Lys Val Leu Gln Phe Lys Asn Lys Lys Leu Ala Glu Arg Leu Glu
 50 55 60
 Gln Arg Gln Ala Cys Glu Asp Glu Leu Arg Glu Arg Ile Glu Lys Leu
 65 70 75 80
 Glu Lys Arg Gln Ala Thr Asp Asp Ala Thr Leu Leu Ile Val Asn Arg
 85 90 95
 Tyr Trp Ala Gln Leu Asp Glu Thr Val Glu Ala Leu Leu Arg Cys His
 100 105 110
 Glu Ser Arg Ile Arg Glu Leu Glu Glu Arg Asp Arg Arg Glu Ser Lys
 115 120 125
 Lys Ile Ala Asp Glu Asp Ala Leu Arg Arg Ile Arg Gln Ala Glu Glu
 130 135 140
 Gln Ile Glu His Leu Gln Arg Lys Leu Gly Ala Thr Lys Gln Glu Glu
 145 150 155 160
 Glu Ala Leu Leu Ser Glu Met Asp Ala Gln Leu Leu Thr Val Gln Lys
 165 170 175
 Leu Glu Glu Lys Glu Arg Ala Leu Gln Gly Ser Leu Gly Gly Val Glu
 180 185 190
 Lys Glu Leu Thr Leu Arg Ser Gln Ala Leu Glu Leu Asn Lys Arg Lys
 195 200 205

Ala Val Glu Ala Ala Gln Leu Ala Glu Asp Leu Lys Val Gln Leu Glu
 210 215 220
 His Val Gln Thr Arg Leu Arg Glu Ile Gln Pro Cys Leu Ala Glu Ser
 225 230 235 240
 Arg Ala Ala Arg Glu Lys Glu Ser Phe Asn Leu Lys Arg Ala Gln Glu
 245 250 255
 Asp Ile Ser Arg Leu Arg Arg Lys Leu Glu Lys Gln Arg Lys Val Glu
 260 265 270
 Val Tyr Ala Asp Ala Asp Glu Ile Leu Gln Glu Glu Ile Lys Glu Tyr
 275 280 285
 Lys Ala Arg Leu Thr Cys Pro Cys Cys Asn Thr Arg Lys Lys Asp Ala
 290 295 300
 Val Leu Thr Lys Cys Phe His Val Phe Cys Phe Glu Cys Val Arg Gly
 305 310 315 320
 Arg Tyr Glu Ala Arg Gln Arg Lys Cys Pro Lys Cys Asn Ala Ala Phe
 325 330 335
 Gly Ala His Asp Phe His Arg Ile Tyr Ile Ser
 340 345

<210> 4840

<211> 997

<212> PRT

<213> Homo sapiens

<400> 4840

Met Glu Ala Ser Trp Arg Gln Val Ala Gly Gly Arg Gly Arg Ser Arg
 1 5 10 15
 Gly Arg Ala Thr Ala Ala Pro Ser Gly Asn Gly Val His Leu Arg Gly
 20 25 30
 Ala Gly Gly Gly Arg Glu Lys Gly Ser Val Gly Ala Val Pro Ser Gly
 35 40 45
 Thr Ser Pro Gly Gly Val Ala Thr Thr Ala Ala Ala Gly Ser Arg His
 50 55 60
 Ser Pro Ala Gly Ser Gln Ala Leu Gln Thr Thr Ala Ala Ser Glu Leu
 65 70 75 80

Leu Pro Cys Gly Asn His Thr Cys Glu Gln Val Cys His Val Gly Ala
 370 375 380
 Cys Gly Glu Cys Pro Arg Ser Gly Lys Arg Phe Cys Pro Cys Gln Lys
 385 390 395 400
 Ser Lys Phe Ser Leu Pro Cys Thr Glu Asp Val Pro Thr Cys Gly Asp
 405 410 415
 Ser Cys Asp Lys Val Leu Glu Cys Gly Ile His Arg Cys Ser Gln Arg
 420 425 430
 Cys His Arg Gly Pro Cys Glu Thr Cys Arg Gln Glu Val Glu Lys His
 435 440 445
 Cys Arg Cys Gly Lys His Thr Lys Arg Met Pro Cys His Lys Pro Tyr
 450 455 460
 Leu Cys Glu Thr Lys Cys Val Lys Met Arg Asp Cys Gln Lys His Gln
 465 470 475 480
 Cys Arg Arg Lys Cys Cys Pro Gly Asn Cys Pro Pro Cys Asp Gln Asn
 485 490 495
 Cys Gly Arg Thr Leu Gly Cys Arg Asn His Lys Cys Pro Ser Val Cys
 500 505 510
 His Arg Gly Ser Cys Tyr Pro Cys Pro Glu Thr Val Asp Val Lys Cys
 515 520 525
 Asn Cys Gly Asn Thr Lys Val Thr Val Pro Cys Gly Arg Glu Arg Thr
 530 535 540
 Thr Arg Pro Pro Lys Cys Lys Glu Gln Cys Ser Arg Pro Pro Thr Cys
 545 550 555 560
 His His Thr Ser Gln Glu Lys His Arg Cys His Phe Gly Ser Cys Pro
 565 570 575
 Pro Cys His Gln Pro Cys Gln Lys Val Leu Glu Lys Cys Gly His Leu
 580 585 590
 Cys Pro Ala Pro Cys His Asp Gln Ala Leu Ile Lys Gln Thr Gly Arg
 595 600 605
 His Gln Pro Thr Gly Pro Trp Glu Gln Pro Ser Glu Pro Ala Phe Ile
 610 615 620
 Gln Thr Ala Leu Pro Cys Pro Pro Cys Gln Val Pro Ile Pro Met Glu
 625 630 635 640
 Cys Leu Gly Lys His Glu Val Ser Pro Leu Pro Cys His Ala Val Gly
 645 650 655

Pro Tyr Ser Cys Lys Arg Val Cys Gly Arg Ile Leu Asp Cys Gln Asn
 660 665 670
 His Thr Cys Met Lys Glu Cys His Lys Val Thr Lys Thr Asp Gly Cys
 675 680 685
 Thr Gly Lys Asn Lys Ala Gly Pro Glu Cys Leu His Cys Glu Glu Gly
 690 695 700
 Cys Ser Lys Ser Arg Pro Leu Gly Cys Leu His Pro Cys Ile Leu Arg
 705 710 715 720
 Cys His Pro Gly Glu Cys Pro Pro Cys Val Gln Met Leu Arg Ile Lys
 725 730 735
 Cys His Cys Lys Ile Thr Ser Leu Tyr Val Glu Cys Arg Lys Ile Thr
 740 745 750
 Thr Ala Asp Val Asn Glu Lys Asn Leu Leu Ser Cys Cys Lys Asn Gln
 755 760 765
 Cys Pro Lys Glu Leu Pro Cys Gly His Arg Cys Lys Glu Met Cys His
 770 775 780
 Pro Gly Glu Cys Pro Phe Asn Cys Asn Gln Lys Val Lys Leu Arg Cys
 785 790 795 800
 Pro Cys Lys Arg Ile Lys Lys Glu Leu Gln Cys Asn Lys Val Arg Glu
 805 810 815
 Asn Gln Val Ser Ile Glu Cys Asp Thr Thr Cys Lys Glu Met Lys Arg
 820 825 830
 Lys Ala Ser Glu Ile Lys Glu Ala Glu Ala Lys Ala Ala Leu Glu Glu
 835 840 845
 Glu Lys Arg Arg Gln Gln Ala Glu Leu Glu Ala Phe Glu Asn Arg Leu
 850 855 860
 Lys Thr Asn His Ile Gly His Thr Gly Tyr Leu Asn Thr Val Thr Val
 865 870 875 880
 Ser Pro Asp Gly Ser Leu Cys Ala Ser Gly Gly Lys Asp Gly Gln Ala
 885 890 895
 Met Leu Trp Asp Leu Asn Glu Gly Lys His Leu Tyr Thr Leu Asp Gly
 900 905 910
 Gly Asp Ile Ile Asn Ala Leu Cys Phe Ser Pro Asn Arg Tyr Trp Leu
 915 920 925
 Cys Ala Ala Thr Gly Pro Ser Ile Lys Ile Trp Asp Leu Glu Gly Lys
 930 935 940

Ile Ile Val Asp Glu Leu Lys Gln Glu Val Ile Ser Thr Ser Ser Lys
 945 950 955 960
 Ala Glu Pro Pro Gln Cys Thr Ser Leu Ala Trp Ser Ala Asp Gly Gln
 965 970 975
 Thr Leu Phe Ala Gly Tyr Thr Asp Asn Leu Val Arg Val Trp Gln Val
 980 985 990
 Thr Ile Gly Thr Arg
 995

<210> 4841

<211> 709

<212> PRT

<213> Homo sapiens

<400> 4841

Met Lys Arg Cys Arg Ser Asp Glu Leu Gln Gln Gln Gly Glu Glu
 1 5 10 15
 Asp Gly Ala Gly Leu Glu Asp Ala Ala Ser His Leu Pro Gly Ala Asp
 20 25 30
 Leu Arg Pro Gly Glu Thr Thr Gly Ala Asn Ser Ala Gly Gly Pro Thr
 35 40 45
 Ser Asp Ala Gly Ala Ala Ala Ala Pro Asn Pro Gly Pro Arg Ser Lys
 50 55 60
 Pro Pro Asp Leu Lys Lys Ile Gln Gln Leu Ser Glu Gly Ser Met Phe
 65 70 75 80
 Gly His Gly Leu Lys His Leu Phe His Ser Arg Arg Arg Ser Arg Glu
 85 90 95
 Arg Glu His Gln Thr Ser Gln Asp Ser Gln Gln His Gln Gln Gln Gln
 100 105 110
 Gly Met Ser Asp His Asp Ser Pro Asp Glu Lys Glu Arg Ser Pro Glu
 115 120 125
 Met His Arg Val Ser Tyr Ala Met Ser Leu His Asp Leu Pro Ala Arg
 130 135 140
 Pro Thr Ala Phe Asn Arg Val Leu Gln Gln Ile Arg Ser Arg Pro Ser
 145 150 155 160

Ile Lys Arg Gly Ala Ser Leu His Ser Ser Ser Gly Gly Gly Ser Ser
 165 170 175
 Gly Ser Ser Ser Arg Arg Thr Lys Ser Ser Ser Leu Glu Pro Gln Arg
 180 185 190
 Gly Ser Pro His Leu Leu Arg Lys Ala Pro Gln Asp Ser Ser Leu Ala
 195 200 205
 Ala Ile Leu His Gln His Gln Cys Arg Pro Arg Ser Ser Ser Thr Thr
 210 215 220
 Asp Thr Ala Leu Leu Leu Ala Asp Gly Ser Asn Val Tyr Leu Leu Ala
 225 230 235 240
 Glu Glu Ala Glu Gly Ile Gly Asp Lys Val Asp Lys Gly Asp Leu Val
 245 250 255
 Ala Leu Ser Leu Pro Ala Gly His Gly Asp Thr Asp Gly Pro Ile Ser
 260 265 270
 Leu Asp Val Pro Asp Gly Ala Pro Asp Pro Gln Arg Thr Lys Ala Ala
 275 280 285
 Ile Asp His Leu His Gln Lys Ile Leu Lys Ile Thr Glu Gln Ile Lys
 290 295 300
 Ile Glu Gln Glu Ala Arg Asp Asp Asn Val Ala Glu Tyr Leu Lys Leu
 305 310 315 320
 Ala Asn Asn Ala Asp Lys Gln Gln Val Ser Arg Ile Lys Gln Val Phe
 325 330 335
 Glu Lys Lys Asn Gln Lys Ser Ala Gln Thr Ile Ala Gln Leu His Lys
 340 345 350
 Lys Leu Glu His Tyr Arg Arg Arg Leu Lys Glu Ile Glu Gln Asn Gly
 355 360 365
 Pro Ser Arg Gln Pro Lys Asp Val Leu Arg Asp Met Gln Gln Gly Leu
 370 375 380
 Lys Asp Val Gly Ala Asn Val Arg Ala Gly Ile Ser Gly Phe Gly Gly
 385 390 395 400
 Gly Val Val Glu Gly Val Lys Gly Ser Leu Ser Gly Leu Ser Gln Ala
 405 410 415
 Thr His Thr Ala Val Val Ser Lys Pro Arg Glu Phe Ala Ser Leu Ile
 420 425 430
 Arg Asn Lys Phe Gly Ser Ala Asp Asn Ile Ala His Leu Lys Asp Pro

435	440	445
Leu Glu Asp Gly Pro Pro Glu Glu Ala Ala Arg Ala Leu Ser Gly Ser		
450	455	460
Ala Thr Leu Val Ser Ser Pro Lys Tyr Gly Ser Asp Asp Glu Cys Ser		
465	470	475
Ser Ala Ser Ala Ser Ser Ala Gly Ala Gly Ser Asn Ser Gly Ala Gly		
485	490	495
Pro Gly Gly Ala Leu Gly Ser Pro Lys Ser Asn Ala Leu Tyr Gly Ala		
500	505	510
Pro Gly Asn Leu Asp Ala Leu Leu Glu Glu Leu Arg Glu Ile Lys Glu		
515	520	525
Gly Gln Ser His Leu Glu Asp Ser Met Glu Asp Leu Lys Thr Gln Leu		
530	535	540
Gln Arg Asp Tyr Thr Tyr Met Thr Gln Cys Leu Gln Glu Glu Arg Tyr		
545	550	555
Arg Tyr Glu Arg Leu Glu Glu Gln Leu Asn Asp Leu Thr Glu Leu His		
565	570	575
Gln Asn Glu Met Thr Asn Leu Lys Gln Glu Leu Ala Ser Met Glu Glu		
580	585	590
Lys Val Ala Tyr Gln Ser Tyr Glu Arg Ala Arg Asp Ile Gln Glu Ala		
595	600	605
Val Glu Ser Cys Leu Thr Arg Val Thr Lys Leu Glu Leu Gln Gln Gln		
610	615	620
Gln Gln Gln Val Val Gln Leu Glu Gly Val Glu Asn Ala Asn Ala Arg		
625	630	635
Ala Leu Leu Gly Lys Phe Ile Asn Val Ile Leu Ala Leu Met Ala Val		
645	650	655
Leu Leu Val Phe Val Ser Thr Ile Ala Asn Phe Ile Thr Pro Leu Met		
660	665	670
Lys Thr Arg Leu Arg Ile Thr Ser Thr Thr Leu Leu Val Leu Val Leu		
675	680	685
Phe Leu Leu Trp Lys His Trp Asp Ser Leu Thr Tyr Leu Leu Glu His		
690	695	700
Val Leu Leu Pro Ser		
705		

<210> 4842

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4842

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Met Gln Arg His Val Met Val Ala Asn Pro Ser Val Leu Cys Ser His
  1             5             10            15
Phe Asn Gln Asp Leu Trp Pro Glu Gln Ser Ile Lys Asp Ser Phe Gln
      20             25            30
Lys Leu Ile Leu Arg Arg His Lys Lys Cys Gly His Asp Asn Leu Gln
      35             40            45
Leu Lys Lys Gly Cys Glu Ser Val Asp Lys Cys Lys Val His Lys Arg
      50             55            60
Gly Tyr Asn Gly Leu Asn Gln Cys Leu Thr Thr Thr Gln Ser Lys Met
      65             70            75            80
Phe Gln Cys Asp Lys His Gly Lys Val Phe His Gln Phe Ser Asn Thr
      85             90            95
Asn Arg His Lys Ile Arg His Thr Gly Lys Asn Pro Cys Lys Phe Thr
      100            105            110
Glu Cys Gly Lys Ala Phe Asn Arg Ser Ser Thr Phe Thr Thr His Lys
      115            120            125
Lys Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Ile Glu Cys Gly Lys
      130            135            140
Ala Phe Asn Arg Ser Ser His Leu Thr Thr His Lys Ile Ile His Thr
      145            150            155            160
Gly Glu Lys Arg Tyr Lys Cys Glu Asp Cys Gly Lys Ala Phe Asn Arg
      165            170            175
Ser Ser Asn Leu Thr Thr His Lys Lys Ile His Thr Gly Glu Lys Pro
      180            185            190
Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Lys Arg Ser Ser Ile Leu
      195            200            205
Thr Thr His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu
      210            215            220
Glu Cys Gly Lys Val Phe Lys Tyr Leu Ser Ser Leu Ser Thr His Lys

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225 230 235 240
 Ile Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys
 245 250 255
 Ala Phe Asn Trp Ser Ser His Leu Thr Thr His Lys Arg Ile His Thr
 260 265 270
 Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys Gly Phe Lys Tyr
 275 280 285
 Ser Ser Thr Leu Thr Lys His Lys Ile Ile His Thr Gly Glu Lys Pro
 290 295 300
 Tyr Lys Cys Glu Glu Cys Arg Ser Leu Arg Ser Gln Cys Asp Gln Leu
 305 310 315 320
 Glu Glu Arg Val Ser Val Met Glu Asp Glu Met Asn Gly Met Lys
 325 330 335

<210> 4843

<211> 505

<212> PRT

<213> Homo sapiens

<400> 4843

Met Lys Ala Gln Arg Glu Arg Leu Gln Ile Pro Gly Leu Thr Leu Asp
 1 5 10 15
 Leu Thr Pro Arg Ser Leu Ser Pro Thr Pro Ser Ser Pro Gly Ser Pro
 20 25 30
 Cys Ser Pro Leu Leu Ala Phe His Phe Trp Ser Cys Arg Thr Ser Asn
 35 40 45
 Arg Lys Ser Leu Ile Gly Asn Gly Gln Ser Pro Ala Leu Pro Arg Pro
 50 55 60
 His Ser Pro Leu Ser Ala His Ala Gly Asn Ser Pro Gln Asp Ser Pro
 65 70 75 80
 Arg Asn Phe Ser Pro Ser Ala Ser Ala His Phe Ser Phe Ala Arg Arg
 85 90 95
 Asn Asp Arg Thr Asp Gly Arg Arg Trp Ser Leu Ala Ser Leu Pro Ser
 100 105 110
 Ser Gly Tyr Gly Thr Asn Thr Pro Ser Ser Thr Val Ser Ser Ser Cys

115	120	125
Ser Ser Gln Glu Lys Leu His	Gln Leu Pro Tyr Gln Pro Thr Pro Asp	
130	135	140
Glu Leu His Phe Leu Ser Lys His Phe Cys Thr Thr Glu Ser Ile Ala		
145	150	155
Thr Glu Asn Arg Cys Arg Asn Thr Pro Met His Pro Arg Ser Arg Ser		
165	170	175
Leu Ser Pro Gly Arg Ser Pro Ala Cys Cys Asp His Glu Ile Ile Met		
180	185	190
Met Asn His Val Tyr Lys Glu Arg Phe Pro Lys Ala Thr Ala Gln Met		
195	200	205
Glu Glu Arg Leu Lys Glu Ile Ile Thr Ser Tyr Ser Pro Asp Asn Val		
210	215	220
Leu Pro Leu Ala Asp Gly Val Leu Ser Phe Thr His His Gln Ile Ile		
225	230	235
Glu Leu Ala Arg Asp Cys Leu Asp Lys Ser His Gln Gly Leu Ile Thr		
245	250	255
Ser Arg Tyr Phe Leu Glu Leu Gln His Lys Leu Asp Lys Leu Leu Gln		
260	265	270
Glu Ala His Asp Arg Ser Glu Ser Gly Glu Leu Ala Phe Ile Lys Gln		
275	280	285
Leu Val Arg Lys Ile Leu Ile Val Ile Ala Arg Pro Ala Arg Leu Leu		
290	295	300
Glu Cys Leu Glu Phe Asp Pro Glu Glu Phe Tyr Tyr Leu Leu Glu Ala		
305	310	315
Ala Glu Gly His Ala Lys Glu Gly Gln Gly Ile Lys Thr Asp Ile Pro		
325	330	335
Arg Tyr Ile Ile Ser Gln Leu Gly Leu Asn Lys Asp Pro Leu Glu Glu		
340	345	350
Met Ala His Leu Gly Asn Tyr Asp Ser Gly Thr Ala Glu Thr Pro Glu		
355	360	365
Thr Asp Glu Ser Val Ser Ser Ser Asn Ala Ser Leu Lys Leu Arg Arg		
370	375	380
Lys Pro Arg Glu Ser Asp Phe Glu Thr Ile Lys Leu Ile Ser Asn Gly		
385	390	395
Ala Tyr Gly Ala Val Tyr Phe Val Arg His Lys Glu Ser Arg Gln Arg		

405 410 415
 Phe Ala Met Lys Lys Ile Asn Lys Gln Asn Leu Ile Leu Arg Asn Gln
 420 425 430
 Ile Gln Gln Ala Phe Val Glu Arg Asp Ile Leu Thr Phe Ala Glu Asn
 435 440 445
 Pro Phe Val Val Ser Met Tyr Cys Ser Phe Glu Thr Arg Arg His Leu
 450 455 460
 Cys Met Val Met Glu Tyr Val Glu Gly Gly Asp Cys Ala Thr Leu Met
 465 470 475 480
 Lys Asn Thr Gly Pro Leu Pro Val Asp Met Ala Arg Met Tyr Phe Ala
 485 490 495
 Glu Thr Val Leu Ala Leu Glu Phe Thr
 500 505

<210> 4844

<211> 408

<212> PRT

<213> Homo sapiens

<400> 4844

Met Arg Glu Lys Ser Phe Gln Cys Asn Glu Ser Gly Lys Ala Phe Asn
 1 5 10 15
 Tyr Ser Ser Leu Leu Arg Lys His Gln Ile Ile His Leu Gly Glu Lys
 20 25 30
 Gln Tyr Lys Cys Asp Val Cys Gly Lys Val Phe Asn Arg Lys Arg Asn
 35 40 45
 Leu Val Cys His Arg Arg Cys His Thr Gly Glu Lys Pro Tyr Arg Cys
 50 55 60
 Asn Glu Cys Gly Lys Thr Phe Ser Gln Thr Tyr Ser Leu Thr Cys His
 65 70 75 80
 Arg Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Asp
 85 90 95
 Lys Ala Phe Ser Phe Lys Ser Asn Leu Lys Arg His Arg Arg Ile His
 100 105 110
 Ala Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser

115	120	125
Gln Thr Ser Ser Leu Thr Cys His Arg Arg Leu His Thr Gly Glu Lys		
130	135	140
Pro Phe Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser Arg Lys Ser Ser		
145	150	155
Leu Thr Cys His His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys		
165	170	175
Asn Glu Cys Gly Lys Thr Phe Ser Gln Glu Leu Thr Leu Lys Cys His		
180	185	190
Arg Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly		
195	200	205
Lys Val Phe Asn Lys Lys Ala Asn Leu Ala Arg His His Arg Leu His		
210	215	220
Ser Gly Glu Lys Pro Tyr Lys Cys Thr Glu Cys Val Lys Thr Phe Ser		
225	230	235
Arg Asn Ser Ala Leu Val Ile His Lys Ala Ile His Ile Gly Glu Lys		
245	250	255
Arg Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser Arg Ile Ser Ala		
260	265	270
Leu Val Ile His Thr Ala Ile His Thr Gly Glu Lys Pro Tyr Lys Cys		
275	280	285
Asn Glu Cys Gly Lys Gly Phe Asn Arg Lys Thr His Leu Ala Cys His		
290	295	300
His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly		
305	310	315
Lys Val Phe Asn Arg Lys Thr His Leu Ala His His His Arg Leu His		
325	330	335
Thr Gly Asp Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Asn		
340	345	350
Gln Lys Ala His Leu Ala Arg His His Arg Leu His Thr Gly Glu Lys		
355	360	365
Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Asn Gln Lys Ala Asn		
370	375	380
Leu Ala Arg His His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Phe		
385	390	395
		400

Asn Glu Cys Gly Lys Ala Phe Asn

405

<210> 4845

<211> 596

<212> PRT

<213> Homo sapiens

<400> 4845

Met Leu Pro Ser Gln Ala Gln Gly Leu Leu Trp Trp Val Phe Pro Leu

1 5 10 15

Phe Pro Ala Ser Ser Leu Ser Tyr Pro Pro Val Ser Tyr Arg Ala Asp

20 25 30

Gly Leu Ala Arg Asn Thr Phe Leu Lys Ala Cys Ser Glu Ser Ser Ser

35 40 45

Ser Ser Asn Ile Ser Thr Met Leu Val Thr His Asp Tyr Thr Ala Val

50 55 60

Lys Glu Asp Glu Ile Asn Val Tyr Gln Gly Glu Val Val Gln Ile Leu

65 70 75 80

Ala Ser Asn Gln Gln Asn Met Phe Leu Val Phe Arg Ala Ala Thr Asp

85 90 95

Gln Cys Pro Ala Ala Glu Gly Trp Ile Pro Gly Phe Val Leu Gly His

100 105 110

Thr Ser Ala Val Ile Val Glu Asn Pro Asp Gly Thr Leu Lys Lys Ser

115 120 125

Thr Ser Trp His Thr Ala Leu Arg Leu Arg Lys Lys Ser Glu Lys Lys

130 135 140

Asp Lys Asp Gly Lys Arg Glu Gly Lys Leu Glu Asn Gly Tyr Arg Lys

145 150 155 160

Ser Arg Glu Gly Leu Ser Asn Lys Val Ser Val Lys Leu Leu Asn Pro

165 170 175

Asn Tyr Ile Tyr Asp Val Pro Pro Glu Phe Val Ile Pro Leu Ser Glu

180 185 190

Val Thr Cys Glu Thr Gly Glu Thr Val Val Leu Arg Cys Arg Val Cys

195 200 205

Gly Arg Pro Lys Ala Ser Ile Thr Trp Lys Gly Pro Glu His Asn Thr
 210 215 220
 Leu Asn Asn Asp Gly His Tyr Ser Ile Ser Tyr Ser Asp Leu Gly Glu
 225 230 235 240
 Ala Thr Leu Lys Ile Val Gly Val Thr Thr Glu Asp Asp Gly Ile Tyr
 245 250 255
 Thr Cys Ile Ala Val Asn Asp Met Gly Ser Ala Ser Ser Ser Ala Ser
 260 265 270
 Leu Arg Val Leu Gly Pro Gly Met Asp Gly Ile Met Val Thr Trp Lys
 275 280 285
 Asp Asn Phe Asp Ser Phe Tyr Ser Glu Val Ala Glu Leu Gly Arg Gly
 290 295 300
 Arg Phe Ser Val Val Lys Lys Cys Asp Gln Lys Gly Thr Lys Arg Ala
 305 310 315 320
 Val Ala Thr Lys Phe Val Asn Lys Lys Leu Met Lys Arg Asp Gln Val
 325 330 335
 Thr His Glu Leu Gly Ile Leu Gln Ser Leu Gln His Pro Leu Leu Val
 340 345 350
 Gly Leu Leu Asp Thr Phe Glu Thr Pro Thr Ser Tyr Ile Leu Val Leu
 355 360 365
 Glu Met Ala Asp Gln Gly Arg Leu Leu Asp Cys Val Val Arg Trp Gly
 370 375 380
 Ser Leu Thr Glu Gly Lys Ile Arg Ala His Leu Gly Glu Val Leu Glu
 385 390 395 400
 Ala Val Arg Tyr Leu His Asn Cys Arg Ile Ala His Leu Asp Leu Lys
 405 410 415
 Pro Glu Asn Ile Leu Val Asp Glu Ser Leu Ala Lys Pro Thr Ile Lys
 420 425 430
 Leu Ala Asp Phe Gly Asp Ala Val Gln Leu Asn Thr Thr Tyr Tyr Ile
 435 440 445
 His Gln Leu Leu Gly Asn Pro Glu Phe Ala Ala Pro Glu Ile Ile Leu
 450 455 460
 Gly Asn Pro Val Ser Leu Thr Ser Asp Thr Trp Ser Val Gly Val Leu
 465 470 475 480
 Thr Tyr Val Leu Leu Ser Gly Val Ser Pro Phe Leu Asp Asp Ser Val
 485 490 495

Glu Glu Thr Cys Leu Asn Ile Cys Arg Leu Asp Phe Ser Phe Pro Asp
 500 505 510
 Asp Tyr Phe Lys Gly Val Ser Gln Lys Ala Lys Glu Phe Val Cys Phe
 515 520 525
 Leu Leu Gln Glu Asp Pro Ala Lys Arg Pro Ser Ala Ala Leu Ala Leu
 530 535 540
 Gln Glu Gln Trp Leu Gln Ala Gly Asn Gly Arg Ser Thr Gly Val Leu
 545 550 555 560
 Asp Thr Ser Arg Leu Thr Ser Phe Ile Glu Arg Arg Lys His Gln Asn
 565 570 575
 Asp Val Arg Pro Ile Arg Ser Ile Lys Asn Phe Leu Gln Ser Arg Leu
 580 585 590
 Leu Pro Arg Val
 595

<210> 4846

<211> 569

<212> PRT

<213> Homo sapiens

<400> 4846

Met Pro Ser Ser Leu Phe Ala Asp Leu Glu Arg Asn Gly Ser Gly Gly
 1 5 10 15
 Gly Gly Gly Gly Ser Ser Gly Gly Gly Glu Thr Leu Asp Asp Gln Arg
 20 25 30
 Ala Leu Gln Leu Ala Leu Asp Gln Leu Ser Leu Leu Gly Leu Asp Ser
 35 40 45
 Asp Glu Gly Ala Ser Leu Tyr Asp Ser Glu Pro Arg Lys Lys Ser Val
 50 55 60
 Asn Met Thr Glu Cys Val Pro Val Pro Ser Ser Glu His Val Ala Glu
 65 70 75 80
 Ile Val Gly Arg Gln Gly Cys Lys Ile Lys Ala Leu Arg Ala Lys Thr
 85 90 95
 Asn Thr Tyr Ile Lys Thr Pro Val Arg Gly Glu Glu Pro Val Phe Val
 100 105 110

Val Thr Gly Arg Lys Glu Asp Val Ala Met Ala Arg Arg Glu Ile Ile
 115 120 125
 Ser Ala Ala Glu His Phe Ser Met Ile Arg Ala Ser Arg Asn Lys Asn
 130 135 140
 Thr Ala Leu Asn Gly Ala Val Pro Gly Pro Pro Asn Leu Pro Gly Gln
 145 150 155 160
 Thr Thr Ile Gln Val Arg Val Pro Tyr Arg Val Val Gly Leu Val Val
 165 170 175
 Gly Pro Lys Gly Ala Thr Ile Lys Arg Ile Gln Gln Gln Thr His Thr
 180 185 190
 Tyr Ile Val Thr Pro Ser Arg Asp Lys Glu Pro Val Phe Glu Val Thr
 195 200 205
 Gly Met Pro Glu Asn Val Asp Arg Ala Arg Glu Glu Ile Glu Ala His
 210 215 220
 Ile Ala Leu Arg Thr Gly Gly Ile Ile Glu Leu Thr Asp Glu Asn Asp
 225 230 235 240
 Phe His Ala Asn Gly Thr Asp Val Gly Phe Asp Leu His His Gly Ser
 245 250 255
 Gly Gly Ser Gly Pro Gly Ser Leu Trp Ser Lys Pro Thr Pro Ser Ile
 260 265 270
 Thr Pro Thr Pro Gly Arg Lys Pro Phe Ser Ser Tyr Arg Asn Asp Ser
 275 280 285
 Ser Ser Ser Leu Gly Ser Ala Ser Thr Asp Ser Tyr Phe Gly Gly Gly
 290 295 300
 Thr Ser Ser Ser Ala Ala Ala Thr Gln Arg Leu Ala Asp Tyr Ser Pro
 305 310 315 320
 Pro Ser Pro Ala Leu Ser Phe Ala His Asn Gly Asn Asn Asn Asn Asn
 325 330 335
 Gly Asn Gly Tyr Thr Tyr Thr Ala Gly Gly Glu Ala Ser Val Pro Ser
 340 345 350
 Pro Asp Gly Cys Pro Glu Leu Gln Pro Thr Phe Asp Pro Ala Pro Ala
 355 360 365
 Pro Pro Pro Gly Ala Pro Leu Ile Trp Ala Gln Phe Glu Arg Ser Pro
 370 375 380
 Gly Gly Gly Pro Ala Ala Pro Val Ser Ser Ser Cys Ser Ser Ser Ala
 385 390 395 400

Ser Ser Ser Ala Ser Ser Ser Ser Val Val Phe Pro Gly Gly Gly Ala
 405 410 415
 Ser Ala Pro Ser Asn Ala Asn Leu Gly Leu Leu Val His Arg Arg Leu
 420 425 430
 His Pro Gly Thr Ser Cys Pro Arg Leu Ser Pro Pro Leu His Met Ala
 435 440 445
 Pro Gly Ala Gly Glu His His Leu Ala Arg Arg Val Arg Ser Asp Pro
 450 455 460
 Gly Gly Gly Gly Leu Ala Tyr Ala Ala Tyr Ala Asn Gly Leu Gly Ala
 465 470 475 480
 Gln Leu Pro Gly Leu Gln Pro Ser Asp Thr Ser Gly Ser Ser Ser Ser
 485 490 495
 Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Gly Leu Arg Arg
 500 505 510
 Lys Gly Ser Arg Asp Cys Ser Val Cys Phe Glu Ser Glu Val Ile Ala
 515 520 525
 Ala Leu Val Pro Cys Gly His Asn Leu Phe Cys Met Glu Cys Ala Asn
 530 535 540
 Arg Ile Cys Glu Lys Ser Glu Pro Glu Cys Pro Val Cys His Thr Ala
 545 550 555 560
 Val Thr Gln Ala Ile Arg Ile Phe Ser
 565

<210> 4847

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4847

Met Ala Leu Leu Ile Thr Pro Ala Gly Val Ala Thr Val Asn Arg His
 1 5 10 15
 Ser Thr Ile Pro Ser Asp Thr His Thr Ser Arg Glu Lys Pro Arg Phe
 20 25 30
 His Lys Pro Cys Arg Asn Asp Leu Glu Ser Leu Leu Ser Glu Gly Arg
 35 40 45

Leu Asp Thr Ser Val Gln Thr Pro Cys Pro Gln His Pro His Thr Gln
 50 55 60
 Leu Ser Cys Glu Pro Gln Pro Leu Glu His Ser Ser Cys Leu Ser Thr
 65 70 75 80
 Cys Leu Ala Gly Cys Phe Leu Pro Val Pro Ser Ser Pro His Thr His
 85 90 95
 Pro Leu Leu Pro Gly Ser Arg Trp Leu Pro Pro Pro Leu Ala Leu Leu
 100 105 110
 Met Gly Thr Leu Ser Pro Gly Leu Ala Val Lys Pro Ser Trp Val Pro
 115 120 125
 Arg Phe Pro Leu Leu Ala Arg Gln Ser Pro Ala Thr Ser Val Gly Met
 130 135 140
 Pro Leu Ser Ala Ala Thr Gln Pro Gly Ser Val Gly Arg Leu His Phe
 145 150 155 160
 Pro Lys Leu Arg Ser Ser Ser Pro Phe Ser Gly His Ser Asp Glu Asn
 165 170 175
 Lys Ala Thr Gly Gln Gly Arg Glu Asn Arg Asp Gln Pro Gln Arg Pro
 180 185 190
 Ser His Leu Cys Glu Cys Pro Glu Ala Ala Lys Gln Ser Ala Thr Asn
 195 200 205
 Gly Val Ala Glu Thr Asn Arg Ser Val Phe Pro Leu Gly Ser Glu Ala
 210 215 220
 Arg Ser Leu Ser Leu Arg Arg Gln Glu Ser Gln Pro His Ser Gly Ser
 225 230 235 240
 Ser Arg Arg Glu Ser Val Ser Cys Ser Pro Ser Phe Trp Cys Cys Trp
 245 250 255
 Gln Pro Leu Ala Phe Leu Thr Cys Gly Cys Ala Ala Pro Ile Ser Val
 260 265 270
 Pro Gly Val Thr Arg Pro Ser Pro Arg Pro Cys Cys Val Ser Pro Pro
 275 280 285
 Leu Val Arg Leu Gln Ser Leu Gly Leu Gly Pro Thr Gln Ile
 290 295 300

<210> 4848

<211> 449

<212> PRT

<213> Homo sapiens

<400> 4848

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Met Pro Gly Met Met Glu Lys Gly Pro Glu Leu Leu Gly Lys Asn Arg
  1             5             10             15
Ser Ala Asn Gly Ser Ala Lys Ser Pro Ala Gly Gly Gly Gly Ser Gly
      20             25             30
Ala Ser Ser Thr Asn Gly Gly Leu His Tyr Ser Glu Pro Glu Ser Gly
      35             40             45
Cys Ser Ser Asp Asp Glu His Asp Val Gly Met Arg Val Gly Ala Glu
      50             55             60
Tyr Gln Ala Arg Ile Pro Glu Phe Asp Pro Gly Ala Thr Lys Tyr Thr
      65             70             75             80
Asp Lys Asp Asn Gly Gly Met Leu Val Trp Ser Pro Tyr His Ser Ile
      85             90             95
Pro Asp Ala Lys Leu Asp Glu Tyr Ile Ala Ile Ala Lys Glu Lys His
      100            105            110
Gly Tyr Asn Val Glu Gln Ala Leu Gly Met Leu Phe Trp His Lys His
      115            120            125
Asn Ile Glu Lys Ser Leu Ala Asp Leu Pro Asn Phe Thr Pro Phe Pro
      130            135            140
Asp Glu Trp Thr Val Glu Asp Lys Val Leu Phe Glu Gln Ala Phe Ser
      145            150            155            160
Phe His Gly Lys Ser Phe His Arg Ile Gln Gln Met Leu Pro Asp Lys
      165            170            175
Thr Ile Ala Ser Leu Val Lys Tyr Tyr Tyr Ser Trp Lys Lys Thr Arg
      180            185            190
Ser Arg Thr Ser Leu Met Asp Arg Gln Ala Arg Lys Leu Ala Asn Arg
      195            200            205
His Asn Gln Gly Asp Ser Asp Asp Asp Val Glu Glu Thr His Pro Met
      210            215            220
Asp Gly Asn Asp Ser Asp Tyr Asp Pro Lys Lys Glu Ala Lys Lys Glu
      225            230            235            240
Gly Asn Thr Glu Gln Pro Val Gln Thr Ser Lys Ile Gly Leu Gly Arg
      245            250            255

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Arg Glu Tyr Gln Ser Leu Gln His Arg His His Ser Gln Arg Ser Lys
 260 265 270
 Cys Arg Pro Pro Lys Gly Met Tyr Leu Thr Gln Glu Asp Val Val Ala
 275 280 285
 Val Ser Cys Ser Pro Asn Ala Ala Asn Thr Ile Leu Arg Gln Leu Asp
 290 295 300
 Met Glu Leu Ile Ser Leu Lys Arg Gln Val Gln Asn Ala Lys Gln Val
 305 310 315 320
 Asn Ser Ala Leu Lys Gln Lys Met Glu Gly Gly Ile Glu Glu Phe Lys
 325 330 335
 Pro Pro Glu Ser Asn Gln Lys Ile Asn Ala Arg Trp Thr Thr Glu Glu
 340 345 350
 Gln Leu Leu Ala Val Gln Gly Val Arg Lys Tyr Gly Lys Asp Phe Gln
 355 360 365
 Ala Ile Ala Asp Val Ile Gly Asn Lys Thr Val Gly Gln Val Lys Asn
 370 375 380
 Phe Phe Val Asn Tyr Arg Arg Arg Phe Asn Leu Glu Glu Val Leu Gln
 385 390 395 400
 Glu Trp Glu Ala Glu Gln Gly Thr Gln Ala Ser Asn Gly Asp Ala Ser
 405 410 415
 Thr Leu Gly Glu Glu Thr Lys Ser Ala Ser Asn Val Pro Ser Gly Lys
 420 425 430
 Ser Thr Asp Glu Glu Glu Glu Val Cys Leu Cys Met Glu Phe Glu Leu
 435 440 445
 Ile

<210> 4849

<211> 244

<212> PRT

<213> Homo sapiens

<400> 4849

Met Thr Gly Ser Asn Ser His Ile Thr Ile Leu Thr Val Asn Ile Asn

1	5	10	15
Gly Leu Asn Ala Pro Ile Lys Gly His Arg Leu Ala Asn Trp Ile Lys			
20	25	30	
Ser Gln Asp Pro Ser Val Cys Cys Ile Gln Glu Thr His Leu Met Arg			
35	40	45	
Lys Phe Thr His Arg Phe Asn Ile Lys Gly Trp Arg Lys Ile Tyr Gln			
50	55	60	
Glu Asn Gly Lys Gln Lys Lys Ala Gly Val Ala Ile Leu Val Ser Asp			
65	70	75	80
Lys Thr Asp Phe Lys Pro Thr Lys Ile Lys Gly Asp Lys Gly His Tyr			
85	90	95	
Ile Met Val Lys Gly Ser Met Gln Gln Glu Glu Leu Thr Ile Leu Asn			
100	105	110	
Ile Tyr Ala Pro Asn Thr Arg Ala Pro Arg Phe Ile Lys Gln Val Leu			
115	120	125	
Arg Asp Leu Gln Arg Asp Leu Asp Ser His Thr Ile Ile Met Gly Asp			
130	135	140	
Phe Asn Thr Glu Leu Ser Ile Leu Glu Arg Ser Thr Arg Gln Lys Val			
145	150	155	160
Asn Lys Asp Ile Gln Asp Leu Asn Ser Ala Leu Gln Gln Thr Asp Pro			
165	170	175	
Ile Asp Ile His Arg Asn Leu His Leu Lys Ser Thr Glu Tyr Thr Leu			
180	185	190	
Phe Ser Ala Pro His Ile Thr Tyr Ser Lys Phe Asp His Ile Ile Gly			
195	200	205	
Ser Lys Ala Leu Leu Thr Lys Cys Lys Arg Thr Glu Ile Thr Thr Asn			
210	215	220	
Cys Leu Leu Asp His Ser Ala Ile Lys Phe Glu Leu Arg Ile Lys Lys			
225	230	235	240
Leu Thr Gln Asn			

<210> 4850

<211> 695

<212> PRT

<213> Homo sapiens

<400> 4850

Met Val Tyr Pro Tyr Pro Gly Ala Arg Ala Glu Glu Lys Leu Gly Gly
 1 5 10 15
 Thr Arg Asp Pro Thr Tyr Gln Glu Arg Ala Ala Pro Gln Thr Gln Pro
 20 25 30
 Leu Gly Lys Glu Thr Asp Ser Leu Ser Ala Gly Phe Val Val Val Met
 35 40 45
 Gly Val Asp Leu Ser Arg Cys Gly Pro Asp His Thr Ala Ser Arg Cys
 50 55 60
 Pro Trp Asp Pro Gly Leu Leu Leu Arg Phe Leu Ala Ala Met Ala Ala
 65 70 75 80
 Val Gly Ala Leu Glu Pro Leu Leu Pro Gly Pro Leu Leu Ala Val His
 85 90 95
 Pro His Ala Gly Thr Ala Pro Pro Ala Asn Gln Leu Pro Trp Pro Val
 100 105 110
 Leu Cys Ser Pro Val Ala Gly Val Ile Leu Leu Ala Leu Gly Ala Leu
 115 120 125
 Leu Val Leu Gln Leu Ile Arg Arg Arg Arg Arg Glu His Gly Ala Leu
 130 135 140
 Trp Leu Pro Pro Gly Phe Thr Arg Arg Pro Arg Thr Gln Ser Ala Pro
 145 150 155 160
 His Arg Arg Arg Pro Pro Leu Gly Glu Asp Ser Ile Gly Leu Lys Ala
 165 170 175
 Leu Lys Pro Lys Ala Glu Val Asp Glu Asp Gly Val Val Met Cys Ser
 180 185 190
 Gly Pro Glu Glu Gly Glu Glu Ala Glu Glu Thr Gly Pro Pro Ser Thr
 195 200 205
 Cys Gln Leu Trp Ser Leu Ser Gly Gly Cys Gly Ala Leu Pro Gln Ala
 210 215 220
 Ala Met Leu Thr Pro Pro Gln Glu Ser Glu Met Glu Ala Pro Asp Leu
 225 230 235 240
 Asp Thr Arg Gly Pro Asp Gly Val Thr Pro Leu Met Ser Ala Val Cys
 245 250 255
 Cys Gly Glu Val Gln Ser Gly Thr Phe Gln Gly Ala Trp Leu Gly Cys

260	265	270
Pro Glu Pro Trp Glu Pro Leu Leu Asp Gly Gly Ala Cys Pro Gln Ala		
275	280	285
His Thr Val Gly Thr Gly Glu Thr Pro Leu His Leu Ala Ala Arg Phe		
290	295	300
Ser Arg Pro Thr Ala Ala Arg Arg Leu Leu Glu Ala Gly Ala Asn Pro		
305	310	315
Asn Gln Pro Asp Arg Ala Gly Arg Thr Pro Leu His Ala Ala Val Ala		
325	330	335
Ala Asp Ala Arg Glu Val Cys Gln Leu Leu Leu Arg Ser Arg Gln Thr		
340	345	350
Ala Val Asp Ala Arg Thr Glu Asp Gly Thr Thr Pro Leu Met Leu Ala		
355	360	365
Ala Arg Leu Ala Val Glu Asp Leu Val Glu Glu Leu Ile Ala Ala Gln		
370	375	380
Ala Asp Val Gly Ala Arg Asp Lys Trp Gly Lys Thr Ala Leu His Trp		
385	390	395
Ala Ala Ala Val Asn Asn Ala Arg Ala Ala Arg Ser Leu Leu Gln Ala		
405	410	415
Gly Ala Asp Lys Asp Ala Gln Asp Asn Arg Glu Gln Thr Pro Leu Phe		
420	425	430
Leu Ala Ala Arg Glu Gly Ala Val Glu Val Ala Gln Leu Leu Leu Gly		
435	440	445
Leu Gly Ala Ala Arg Glu Leu Arg Asp Gln Ala Gly Leu Ala Pro Ala		
450	455	460
Asp Val Ala His Gln Arg Asn His Trp Asp Leu Leu Thr Leu Leu Glu		
465	470	475
Gly Ala Gly Pro Pro Glu Ala Arg His Lys Ala Thr Pro Gly Arg Glu		
485	490	495
Ala Gly Pro Phe Pro Arg Ala Arg Thr Val Ser Val Ser Val Pro Pro		
500	505	510
His Gly Gly Gly Ala Leu Pro Arg Cys Arg Thr Leu Ser Ala Gly Ala		
515	520	525
Gly Pro Arg Gly Gly Gly Ala Cys Leu Gln Ala Arg Thr Trp Ser Val		
530	535	540
Asp Leu Ala Ala Arg Gly Gly Gly Ala Tyr Ser His Cys Arg Ser Leu		

545 550 555 560
 Ser Gly Val Gly Ala Gly Gly Gly Pro Thr Pro Arg Gly Arg Arg Phe
 565 570 575
 Ser Ala Gly Met Arg Gly Pro Arg Pro Asn Pro Ala Ile Met Arg Gly
 580 585 590
 Arg Tyr Gly Val Ala Ala Gly Arg Gly Gly Arg Val Ser Thr Asp Asp
 595 600 605
 Trp Pro Cys Asp Trp Val Ala Leu Gly Ala Cys Gly Ser Ala Ser Asn
 610 615 620
 Ile Pro Ile Pro Pro Pro Cys Leu Thr Pro Ser Pro Glu Arg Gly Ser
 625 630 635 640
 Pro Gln Leu Asp Cys Gly Pro Pro Ala Leu Gln Glu Met Pro Ile Asn
 645 650 655
 Gln Gly Gly Glu Gly Lys Lys Ile Glu Glu Tyr Met Val Gly Arg Asn
 660 665 670
 Ser Lys Asn Asp Tyr Pro Leu Lys Gly Arg Leu Glu Gly Leu Pro Gly
 675 680 685
 Phe Lys Met Asp Pro Pro Lys
 690 695

<210> 4851

<211> 211

<212> PRT

<213> Homo sapiens

<400> 4851

Met Ser Ser Val Val Gly Leu Phe Leu Cys Phe Thr Ser Cys Ser Ser
 1 5 10 15
 His Phe Ser Leu Tyr Leu Pro Lys Ser Trp Thr Ile Gln Val Gly Leu
 20 25 30
 Val Ser Leu Leu Asp Asn Pro Ala Pro Ser His Leu Val Glu Lys Ile
 35 40 45
 Val Tyr His Ser Lys Tyr Lys Pro Lys Arg Leu Gly Asn Asp Ile Ala
 50 55 60
 Leu Met Lys Leu Ala Gly Pro Leu Thr Phe Asn Glu Met Ile Gln Pro

65 70 75 80
 Val Cys Leu Pro Asn Ser Glu Glu Asn Phe Pro Asp Gly Lys Val Cys
 85 90 95
 Trp Thr Ser Gly Trp Gly Ala Thr Glu Asp Gly Gly Asp Ala Ser Pro
 100 105 110
 Val Leu Asn His Ala Ala Val Pro Leu Ile Ser Asn Lys Ile Cys Asn
 115 120 125
 His Arg Asp Val Tyr Gly Gly Ile Ile Ser Pro Ser Met Leu Cys Ala
 130 135 140
 Gly Tyr Leu Thr Gly Gly Val Asp Ser Cys Gln Gly Asp Ser Gly Gly
 145 150 155 160
 Pro Leu Val Cys Gln Glu Arg Arg Leu Trp Lys Leu Val Gly Ala Thr
 165 170 175
 Ser Phe Gly Ile Gly Cys Ala Glu Val Asn Lys Pro Gly Val Tyr Thr
 180 185 190
 Arg Val Thr Ser Phe Leu Asp Trp Ile His Glu Gln Met Glu Arg Asp
 195 200 205
 Leu Lys Thr
 210

<210> 4852

<211> 193

<212> PRT

<213> Homo sapiens

<400> 4852

Met His Ala Leu Lys Met Thr Trp His Val His Cys Phe Thr Cys Ala
 1 5 10 15
 Ala Cys Lys Thr Pro Ile Arg Asn Arg Ala Phe Tyr Met Glu Glu Gly
 20 25 30
 Val Pro Tyr Cys Glu Arg Gly Thr His Trp Pro Val Arg Val Arg Arg
 35 40 45
 Asp Gly Ala Trp Gly Arg His Glu Ser Arg Ser Ser Phe Ser Leu Pro
 50 55 60
 Pro Phe Ser Asp Tyr Glu Lys Met Phe Gly Thr Lys Cys His Gly Cys

65 70 75 80
 Asp Phe Lys Ile Asp Ala Gly Asp Arg Phe Leu Glu Ala Leu Gly Phe
 85 90 95
 Ser Trp His Asp Thr Cys Phe Val Cys Ala Val Arg Ala Pro Pro Leu
 100 105 110
 Glu Leu Ser Pro Lys Pro Thr Gly Pro Leu Phe Ile Pro Gln Glu Met
 115 120 125
 Gln Glu Lys Leu Gly Arg Gly Leu Ser Cys Cys Pro Gln Pro His Val
 130 135 140
 Thr Gly Pro Leu Leu Ser Leu Asp Met Ser Asp Gln Pro Gly Arg Lys
 145 150 155 160
 Asp Leu Leu Leu Gln Glu Gly Gln Ala Ser Leu Gln Glu Pro Cys Leu
 165 170 175
 Leu Ser Cys Val Ser Pro Phe Cys Pro Gln Leu Pro Arg Trp Pro Leu
 180 185 190
 Ala

<210> 4853

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4853

Met Cys Gln Val Tyr Phe Val Lys Leu Leu Ile Leu Gly Val Leu Leu
 1 5 10 15
 Cys Phe Leu Leu Val Arg Gln Asp Leu Thr Leu Ser Pro Arg Leu Glu
 20 25 30
 Cys Ser Gly Ala Ile Trp Ala His Cys Asn Pro Arg Leu Leu Gly Ile
 35 40 45
 Ser Asn Leu Pro Ala Leu Ala Ser Gln Val Ala Glu Thr Thr Gly Met
 50 55 60
 Ser His His Thr Gln Leu Thr Thr Cys Asn Phe Phe Asp Arg Asp Arg
 65 70 75 80
 Ser Cys His Val Thr Gln Thr Asp Leu Lys Thr Pro Gly Leu Arg Arg

```

      85              90              95
Pro Thr His Leu Gly Leu Pro Lys Cys Trp Asp Tyr Arg Cys Glu Pro
      100              105              110
Leu His Leu Thr Gln Phe Val Ile Leu Asn Leu Phe Leu Leu Ser Cys
      115              120              125
Phe Ser Phe Phe Phe Leu
      130

```

<210> 4854

<211> 568

<212> PRT \

<213> Homo sapiens

<400> 4854

```

Met Gly Ser Glu Val Val Ala Gly Asn Ser Val Gly Pro Thr Met Gly
  1              5              10              15
Ala Ala Ser Ser Gly Pro Leu Pro Pro Pro Pro Pro Pro Leu Pro Pro
      20              25              30
Ser Ser Asp Thr Pro Glu Thr Val Gln Asn Gly Pro Val Thr Pro Pro
      35              40              45
Met Pro Pro Pro Pro Pro Leu Pro Gly Pro Ala Ala Glu Thr Val Pro
      50              55              60
Ala Pro Pro Leu Ala Pro Pro Leu Pro Ser Ala Pro Pro Leu Pro Gly
      65              70              75              80
Thr Ser Ser Pro Thr Val Val Phe Asn Ser Gly Leu Ala Ala Val Lys
      85              90              95
Ile Lys Lys Pro Ile Lys Thr Lys Phe Arg Met Pro Val Phe Asn Trp
      100              105              110
Val Ala Leu Lys Pro Asn Gln Ile Asn Gly Thr Val Phe Asn Glu Ile
      115              120              125
Asp Asp Glu Arg Ile Leu Glu Asp Leu Asn Val Asp Glu Phe Glu Glu
      130              135              140
Ile Phe Lys Thr Lys Ala Gln Gly Pro Ala Ile Asp Leu Ser Ser Ser
      145              150              155              160
Lys Gln Lys Ile Pro Gln Lys Gly Ser Asn Lys Val Thr Leu Leu Glu

```

	165	170	175
Ala Asn Arg	Ala Lys Asn Leu	Ala Ile Thr Leu Arg	Lys Ala Gly Lys
	180	185	190
Thr Ala Asp	Glu Ile Cys Lys	Ala Ile His Val Phe	Asp Leu Lys Thr
	195	200	205
Leu Pro Val	Asp Phe Val Glu Cys	Leu Met Arg Phe	Leu Pro Thr Glu
	210	215	220
Asn Glu Val	Lys Val Leu Arg	Leu Tyr Glu Arg	Glu Arg Lys Pro Leu
225	230	235	240
Glu Asn Leu	Ser Asp Glu Asp	Arg Phe Met Met	Gln Phe Ser Lys Ile
	245	250	255
Glu Arg Leu	Met Gln Lys Met	Thr Ile Met Ala	Phe Ile Gly Asn Phe
	260	265	270
Ala Glu Ser	Ile Gln Met Leu	Thr Pro Gln Leu	His Ala Ile Ile Ala
	275	280	285
Ala Ser Val	Ser Ile Lys Ser	Ser Gln Lys Leu	Lys Lys Ile Leu Glu
	290	295	300
Ile Ile Leu	Ala Leu Gly Asn	Tyr Met Asn Ser	Ser Lys Arg Gly Ala
305	310	315	320
Val Tyr Gly	Phe Lys Leu Gln	Ser Leu Asp Leu	Leu Leu Asp Thr Lys
	325	330	335
Ser Thr Asp	Arg Lys Gln Thr	Leu Leu His Tyr	Ile Ser Asn Val Val
	340	345	350
Lys Glu Lys	Tyr His Gln Val	Ser Leu Phe Tyr	Asn Glu Leu His Tyr
	355	360	365
Val Glu Lys	Ala Ala Ala Val	Ser Leu Glu Asn	Val Leu Leu Asp Val
	370	375	380
Lys Glu Leu	Gln Arg Gly Met	Asp Leu Thr Lys	Arg Glu Tyr Thr Met
385	390	395	400
His Asp His	Asn Thr Leu Leu	Lys Glu Phe Ile	Leu Asn Asn Glu Gly
	405	410	415
Lys Leu Lys	Lys Leu Gln Asp	Asp Ala Lys Ile	Ala Gln Asp Ala Phe
	420	425	430
Asp Asp Val	Val Lys Tyr Phe	Gly Glu Asn Pro	Lys Thr Thr Pro Pro
	435	440	445
Ser Val Phe	Phe Pro Val Phe	Val Arg Phe Val	Lys Ala Tyr Lys Gln

450 455 460
 Ala Glu Glu Glu Asn Glu Leu Arg Lys Lys Gln Glu Gln Ala Leu Met
 465 470 475 480
 Glu Lys Leu Leu Glu Gln Glu Ala Leu Met Glu Gln Gln Asp Pro Lys
 485 490 495
 Ser Pro Ser His Lys Ser Lys Arg Gln Gln Gln Glu Leu Ile Ala Glu
 500 505 510
 Leu Arg Arg Arg Gln Val Lys Asp Asn Arg His Val Tyr Glu Gly Lys
 515 520 525
 Asp Gly Ala Ile Glu Asp Ile Ile Thr Ala Leu Lys Lys Asn Asn Ile
 530 535 540
 Thr Lys Phe Pro Asn Val His Ser Arg Val Arg Ile Ser Ser Ser Thr
 545 550 555 560
 Pro Val Val Glu Asp Thr Gln Ser
 565

<210> 4855

<211> 415

<212> PRT

<213> Homo sapiens

<400> 4855

Met Thr Leu Ala Ala Ser Ser Gln Arg Ser Gln Ile Ile Arg Ser Lys
 1 5 10 15
 Phe Arg Ser Val Leu Gln Leu Arg Ile His Arg Arg Asn Gln Glu Gln
 20 25 30
 Ile Ser Asp Pro Asp Pro Trp Ile Ser Ala Ser Asp Pro Pro Leu Ala
 35 40 45
 Pro Ala Leu Pro Ser Gly Thr Ala Pro Phe Leu Phe Ser Pro Gly Val
 50 55 60
 Leu Leu Pro Glu Pro Glu Tyr Cys Pro Pro Trp Arg Ser Pro Lys Lys
 65 70 75 80
 Glu Ser Pro Lys Ile Ser Gln Arg Trp Arg Glu Ser Lys Pro Arg Gly
 85 90 95
 Asn Leu Thr Tyr His Gln Tyr Met Pro Pro Glu Pro Arg Gln Gly Ser

100	105	110
Arg Ala Asp Pro Gln Ala Glu Gly Ser Ala Leu Gly Pro Pro Gly Pro		
115	120	125
Ser Leu Trp Glu Gly Thr Asp Ser Gln Gln Pro His Pro Arg Met Lys		
130	135	140
Pro Ser Pro Leu Thr Pro Cys Pro Pro Gly Val Pro Ser Pro Ser Pro		
145	150	155
Pro Pro His Lys Leu Glu Leu Gln Thr Leu Lys Leu Glu Glu Leu Thr		
165	170	175
Val Ser Glu Leu Arg Gln Gln Leu Arg Leu Arg Gly Leu Pro Val Ser		
180	185	190
Gly Thr Lys Ser Met Leu Leu Glu Arg Met Arg Gly Gly Ala Pro Pro		
195	200	205
Arg Glu Arg Pro Lys Pro Arg Arg Glu Asp Ser Pro Ala Gly Ala Pro		
210	215	220
Trp Pro Arg Leu Lys Pro Lys Ala Leu Ala Ala Ala Arg Arg Gln Gly		
225	230	235
Ser Val Lys Pro Ser Ala Ala Ser His Arg Pro Pro Leu Pro Arg Ala		
245	250	255
Ala Asp Thr Pro Gly Thr Ala Pro Ala Pro Thr Pro Thr Pro Ala Pro		
260	265	270
Ala Ala Ala Pro Ala Leu Thr Pro Ser Ser Gly Pro Gly Ser Ala Ala		
275	280	285
Leu Thr Leu Glu Glu Glu Leu Gln Glu Ala Ile Arg Arg Ala Gln Leu		
290	295	300
Leu Pro Asn Arg Gly Ile Asp Asp Ile Leu Glu Asp Gln Val Glu Pro		
305	310	315
Asp Asp Pro Leu Pro Pro Ile Pro Leu Asp Phe Pro Gly Ser Phe Asp		
325	330	335
Val Leu Ser Pro Ser Pro Asp Ser Glu Gly Leu Ser Ser Val Phe Ser		
340	345	350
Ser Ser Leu Pro Ser Pro Thr Asn Ser Ser Ser Pro Ser Pro Arg Asp		
355	360	365
Pro Thr Asp Ser Leu Asp Trp Leu Glu Ala Leu Ser Gly Gly Pro Pro		
370	375	380
Leu Gly Ser Gly Pro Pro Pro Pro Ser Ile Phe Ser Ala Asp Leu Ser		

<400>	4856		
Met Ser Cys Tyr Pro Thr Phe Asp Trp Ala Thr Trp Ala Glu Gly Glu			
1	5	10	15
Lys Gly Val Trp Lys Ser Pro Pro Ser Ile Gln Thr Gly Asp Gln Ile			
20	25	30	
Gly Val Arg Glu Glu Leu Leu Asn Ala Leu His Ser Ser Leu Ala Arg			
35	40	45	
Pro Ala Ile Lys Lys His Gln His Pro Lys Gly Lys Lys Lys Arg Arg			
50	55	60	
Ser Arg Glu Lys His Gln Glu Ser Thr Thr Asp Pro Gly Ser Pro Lys			
65	70	75	80
Lys Cys Arg Ala Arg Phe Gly Leu Asn Gln Gln Thr Asp Trp Cys Gly			
85	90	95	
Pro Cys Arg Arg Lys Lys Lys Cys Ile Arg Tyr Leu Pro Gly Glu Gly			
100	105	110	
Arg Cys Pro Ser Pro Val Pro Ser Asp Asp Ser Ala Leu Gly Cys Pro			
115	120	125	
Gly Ser Pro Ala Pro Gln Asp Ser Pro Ser Tyr His Leu Leu Pro Arg			
130	135	140	
Phe Pro Thr Glu Leu Leu Thr Ser Pro Ala Glu Pro Ala Pro Thr Ser			
145	150	155	160
Pro Gly Leu Ser Thr Ala Leu Ser Leu Pro Thr Pro Gly Pro Pro Gln			
165	170	175	
Ala Pro Arg Ser Thr Leu Gln Ser Thr Gln Val Gln Gln Gln Glu Ser			
180	185	190	
Gln Arg Gln Val Ala			

195

<210> 4857

<211> 209

<212> PRT

<213> Homo sapiens

<400> 4857

```

Met Lys Lys Leu Thr Pro Lys Gln Lys Phe Ser Glu Asp Leu Glu Ser
  1             5             10             15
Tyr Lys Ile Ser Val Val Met Gln Glu Ser Ala Glu Lys Leu Ser Glu
          20             25             30
Lys Leu His Lys Cys Lys Glu Phe Val Asp Ser Cys Arg Leu Thr Phe
      35             40             45
Pro Thr Ser Gly Asp Glu Tyr Ser Arg Gly Phe Leu Gln Asn Leu Asn
      50             55             60
Leu Ile Gln Asp Gln Asn Ala Gln Thr Arg Trp Lys Gln Gly Arg Tyr
      65             70             75             80
Asp Glu Asp Gly Lys Pro Phe Asn Gln Arg Ser Leu Leu Leu Gly His
          85             90             95
Glu Arg Ile Leu Thr Arg Ala Lys Ser Tyr Glu Cys Ser Glu Cys Gly
      100             105             110
Lys Val Ile Arg Arg Lys Ala Trp Phe Asp Gln His Gln Arg Ile His
      115             120             125
Phe Leu Glu Asn Pro Phe Glu Cys Lys Val Cys Gly Gln Ala Phe Arg
      130             135             140
Gln Arg Ser Ala Leu Thr Val His Lys Gln Cys His Leu Gln Asn Lys
      145             150             155             160
Pro Tyr Arg Cys His Asp Cys Gly Lys Cys Phe Arg Gln Leu Ala Phe
          165             170             175
Leu Leu Asn Ile Arg Gly Phe Thr Pro Lys Lys Asn Leu Ile Asn Val
          180             185             190
Ala Asn Val Lys Lys Arg Leu Val Arg Ile Gln Pro Leu Phe Asp Ile
          195             200             205
Arg

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<210> 4858

<211> 259

<212> PRT

<213> Homo sapiens

<400> 4858

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Met Glu Cys His Leu Lys Thr His Tyr Lys Met Glu Tyr Lys Cys Arg
  1              5              10              15
Ile Cys Gln Thr Val Lys Ala Asn Gln Leu Glu Leu Glu Thr Arg Thr
      20              25              30
Arg Glu His Arg Leu Gly Asn His Tyr Lys Cys Asp Gln Cys Gly Tyr
      35              40              45
Leu Ser Lys Thr Ala Asn Lys Leu Ile Glu His Val Arg Val His Thr
      50              55              60
Gly Glu Arg Pro Phe His Cys Asp Gln Cys Ser Tyr Ser Cys Lys Arg
      65              70              75              80
Lys Asp Asn Leu Asn Leu His Lys Lys Leu Lys His Ala Pro Arg Gln
      85              90              95
Thr Phe Ser Cys Glu Glu Cys Leu Phe Lys Thr Thr His Pro Phe Val
      100             105             110
Phe Ser Arg His Val Lys Lys His Gln Ser Gly Asp Cys Pro Glu Glu
      115             120             125
Asp Lys Lys Gly Leu Cys Pro Ala Pro Lys Glu Pro Ala Gly Pro Gly
      130             135             140
Ala Pro Leu Leu Val Val Gly Ser Ser Arg Asn Leu Leu Ser Pro Leu
      145             150             155             160
Ser Val Met Ser Ala Ser Gln Ala Leu Gln Thr Val Ala Leu Ser Ala
      165             170             175
Ala His Gly Ser Ser Ser Glu Pro Asn Leu Ala Leu Lys Ala Leu Ala
      180             185             190
Phe Asn Gly Ser Pro Leu Arg Phe Asp Lys Tyr Arg Asn Ser Asp Phe
      195             200             205
Ala His Leu Ile Pro Leu Thr Met Leu Tyr Pro Lys Asn His Leu Asp

```


210 215 220
 Leu Thr Phe His Pro Pro Arg Pro Gln Thr Ala Pro Pro Ser Ile Pro
 225 230 235 240
 Ser Pro Lys His Pro Phe Leu Ala Tyr Leu Gly Leu Arg Glu Arg Ala
 245 250 255
 Glu Thr Val

<210> 4859

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4859

Met Ile Ser Ala Tyr Cys Asn Leu His Leu Leu Gly Ser Ser Asn Ser
 1 5 10 15
 Ser Ala Ser Ala Ser Gln Val Ala Gly Ile Thr Gly Ala Cys Gln His
 20 25 30
 Ala Trp Leu Ile Trp Gly Tyr Ser Ser Phe Leu Arg Gln Ser Phe Ala
 35 40 45
 Leu Ser Pro Lys Leu Glu Cys Ser Gly Thr Ile Ser Ala Leu Cys Ser
 50 55 60
 Leu Cys Leu Leu Gly Ser Ser Asp Ser Pro Ser Ser Ala Ser Gln Val
 65 70 75 80
 Ala Gly Ile Thr Gly Ala Cys Tyr His Ala Gln Leu Ile Phe Val Phe
 85 90 95
 Leu Val Gln Met Arg Phe His His Leu Gly Gln Ala Gly Leu Glu Leu
 100 105 110
 Leu Thr Ser Ser Asp Leu Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile
 115 120 125
 Thr Asp Val Asn His His Ala Gln Pro Leu Trp Gly Tyr Ser Cys Pro
 130 135 140
 Tyr Phe Ser Phe Ile Val Leu Tyr Lys Lys Val Val Leu Leu Tyr Leu
 145 150 155 160

<210> 4860

<211> 276

<212> PRT

<213> Homo sapiens

<400> 4860

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Met Asn Val Gln Ser Ser Arg Ser His Ala Ile Phe Thr Ile His Leu
  1             5             10             15
Cys Gln Met Arg Met Cys Thr Gln Pro Asp Leu Val Asn Glu Ala Val
             20             25             30
Thr Gly Leu Pro Asp Gly Thr Pro Pro Ser Ser Glu Tyr Glu Thr Leu
             35             40             45
Thr Ala Lys Phe His Phe Val Asp Leu Ala Gly Ser Glu Arg Leu Lys
             50             55             60
Arg Thr Gly Ala Thr Gly Glu Arg Ala Lys Glu Gly Ile Ser Ile Asn
             65             70             75             80
Cys Gly Leu Val Gly Thr Trp Trp Val Ile Ser Pro Ser Thr His Thr
             85             90             95
Ala Gln Ser Gln Thr Pro Pro Arg Pro Cys Ser Pro Thr Pro Ala Glu
             100            105            110
Ser Ser Leu Asp Ile Leu Pro Ile Ser Pro Ser Leu Ser Gly Val Thr
             115            120            125
Pro Val Pro Ser Phe Pro Ile Ser Pro Thr Tyr Pro Cys Ala Tyr Lys
             130            135            140
Pro Thr Gln Gly Ala Arg Gly Leu Leu Gly Pro Lys Arg Gln Leu Ala
             145            150            155            160
Leu Gly Asn Val Ile Ser Ala Leu Gly Asp Gln Ser Lys Lys Val Val
             165            170            175
His Val Ser Tyr Arg Asp Ser Lys Leu Thr Arg Leu Leu Gln Asp Ser
             180            185            190
Leu Gly Gly Asn Ser Gln Thr Ile Met Ile Ala Cys Val Ser Pro Ser
             195            200            205
Asp Arg Asp Phe Met Glu Thr Leu Asn Thr Leu Lys Tyr Ala Asn Arg
             210            215            220
Ala Arg Asn Ile Lys Asn Lys Val Val Val Asn Gln Asp Lys Thr Ser

```

225 230 235 240
 Gln Gln Ile Ser Ala Leu Arg Ala Glu Ile Ala Arg Leu Gln Met Glu
 245 250 255
 Leu Met Glu Tyr Lys Ala Val Ser Met Leu Leu Gly Ile Ala Gln His
 260 265 270
 Ser Pro Trp Ser
 275

<210> 4861

<211> 159

<212> PRT

<213> Homo sapiens

<400> 4861

Met Gln Gly Ala Glu Leu His Pro Arg Cys His Ala Trp Val Ser Val
 1 5 10 15
 Phe Ala Leu Gly Leu Thr Leu Lys Arg Thr Gly Gln Pro Gln Ala Pro
 20 25 30
 Ser Thr Gly Asp Leu Pro Ser Gly Pro Ala Gly Lys Ala Gly Ser Arg
 35 40 45
 Glu Leu Arg Gly Glu Pro Pro Thr Trp Val Trp His Pro Pro Ile Ser
 50 55 60
 Asp Asn Phe His Gln Glu Asp Ser Lys Arg Pro His Val Cys Phe Asp
 65 70 75 80
 Gly Glu Asp Pro Glu Val Asp Gly Phe Arg Gly Cys Pro Leu Asp Gly
 85 90 95
 Glu Leu Gly Pro Cys Gly Lys Ser His Ala Ser Phe Gly Arg Pro Arg
 100 105 110
 Pro Val Ala Pro Thr Leu His Pro His Pro Tyr Pro Cys Ser Cys Cys
 115 120 125
 Pro Ser Ile Lys Pro Pro Leu Arg Gly Leu Thr Gly Arg Gly Gly Gln
 130 135 140
 Ala Trp Arg Gly Ser His Tyr Arg Thr Pro Gly His Met Thr Arg
 145 150 155

<210> 4862

<211> 781

<212> PRT

<213> Homo sapiens

<400> 4862

```

Met Lys Ser Ser Gly Pro Val Glu Arg Leu Leu Arg Ala Leu Gly Arg
  1             5             10             15
Arg Asp Ser Ser Arg Ala Ala Ser Arg Pro Arg Lys Ala Glu Pro His
      20             25             30
Ser Phe Arg Glu Lys Val Phe Arg Lys Lys Pro Pro Val Cys Ala Val
      35             40             45
Cys Lys Val Thr Ile Asp Gly Thr Gly Val Ser Cys Arg Val Cys Lys
      50             55             60
Val Ala Thr His Arg Lys Cys Glu Ala Lys Val Thr Ser Ala Cys Gln
      65             70             75             80
Ala Leu Pro Pro Val Glu Leu Arg Arg Asn Thr Ala Pro Val Arg Arg
      85             90             95
Ile Glu His Leu Gly Ser Thr Lys Ser Leu Asn His Ser Lys Gln Arg
      100            105            110
Ser Thr Leu Pro Arg Ser Phe Ser Leu Asp Pro Leu Met Glu Arg Arg
      115            120            125
Trp Asp Leu Asp Leu Thr Tyr Val Thr Glu Arg Ile Leu Ala Ala Ala
      130            135            140
Phe Pro Ala Arg Pro Asp Glu Gln Arg His Arg Gly His Leu Arg Glu
      145            150            155            160
Leu Ala His Val Leu Gln Ser Lys His Arg Asp Lys Tyr Leu Leu Phe
      165            170            175
Asn Leu Ser Glu Lys Arg His Asp Leu Thr Arg Leu Asn Pro Lys Val
      180            185            190
Gln Asp Phe Gly Trp Pro Glu Leu His Ala Pro Pro Leu Asp Lys Leu
      195            200            205
Cys Ser Ile Cys Lys Ala Met Glu Thr Trp Leu Ser Ala Asp Pro Gln
      210            215            220
His Val Val Val Leu Tyr Cys Lys Gly Asn Lys Gly Lys Leu Gly Val

```

225 230 235 240
 Ile Val Ser Ala Tyr Met His Tyr Ser Lys Ile Ser Ala Gly Ala Asp
 245 250 255
 Gln Ala Leu Ala Thr Leu Thr Met Arg Lys Phe Cys Glu Asp Lys Val
 260 265 270
 Ala Thr Glu Leu Gln Pro Ser Gln Arg Arg Tyr Ile Ser Tyr Phe Ser
 275 280 285
 Gly Leu Leu Ser Gly Ser Ile Arg Met Asn Ser Ser Pro Leu Phe Leu
 290 295 300
 His Tyr Val Leu Ile Pro Met Leu Pro Ala Phe Glu Pro Gly Thr Gly
 305 310 315 320
 Phe Gln Pro Phe Leu Lys Ile Tyr Gln Ser Met Gln Leu Val Tyr Thr
 325 330 335
 Ser Gly Val Tyr His Ile Ala Gly Pro Gly Pro Gln Gln Leu Cys Ile

 340 345 350
 Ser Leu Glu Pro Ala Leu Leu Leu Lys Gly Asp Val Met Val Thr Cys
 355 360 365
 Tyr His Lys Gly Gly Arg Gly Thr Asp Arg Thr Leu Val Phe Arg Val
 370 375 380
 Gln Phe His Thr Cys Thr Ile His Gly Pro Gln Leu Thr Phe Pro Lys
 385 390 395 400
 Asp Gln Leu Asp Glu Ala Trp Thr Asp Glu Arg Phe Pro Phe Gln Ala
 405 410 415
 Ser Val Glu Phe Val Phe Ser Ser Ser Pro Glu Lys Ile Lys Gly Ser
 420 425 430
 Thr Pro Arg Asn Asp Pro Ser Val Ser Val Asp Tyr Asn Thr Thr Glu
 435 440 445
 Pro Ala Val Arg Trp Asp Ser Tyr Glu Asn Phe Asn Gln His His Glu
 450 455 460
 Asp Ser Val Asp Gly Ser Leu Thr His Thr Arg Gly Pro Leu Asp Gly
 465 470 475 480
 Ser Pro Tyr Ala Gln Val Gln Arg Pro Pro Arg Gln Thr Pro Pro Ala
 485 490 495
 Pro Ser Pro Glu Pro Pro Pro Pro Pro Met Leu Ser Val Ser Ser Asp
 500 505 510

Ser Gly His Ser Ser Thr Leu Thr Thr Glu Pro Ala Ala Glu Ser Pro
 515 520 525
 Gly Arg Pro Pro Pro Thr Ala Ala Glu Arg Gln Glu Leu Asp Arg Leu
 530 535 540
 Leu Gly Gly Cys Gly Val Ala Ser Gly Gly Arg Gly Ala Gly Arg Glu
 545 550 555 560
 Thr Ala Ile Leu Asp Asp Glu Glu Gln Pro Thr Val Gly Gly Gly Pro
 565 570 575
 His Leu Gly Val Tyr Pro Gly His Arg Pro Gly Leu Ser Arg His Cys
 580 585 590
 Ser Cys Arg Gln Gly Tyr Arg Glu Pro Cys Gly Val Pro Asn Gly Gly
 595 600 605
 Tyr Tyr Arg Pro Glu Gly Thr Leu Glu Arg Arg Arg Leu Ala Tyr Gly
 610 615 620
 Gly Tyr Glu Gly Ser Pro Gln Gly Tyr Ala Glu Ala Ser Met Glu Lys
 625 630 635 640
 Arg Arg Leu Cys Arg Ser Leu Ser Glu Gly Leu Tyr Pro Tyr Pro Pro
 645 650 655
 Glu Met Gly Lys Pro Ala Thr Gly Asp Phe Gly Tyr Arg Ala Ser Ser
 660 665 670
 Ala Ala Leu Ser Cys Ser Pro Arg Pro Thr Pro Ala Val Val His Phe
 675 680 685
 Lys Val Ser Ala Gln Gly Ile Thr Leu Thr Asp Asn Gln Arg Lys Leu
 690 695 700
 Phe Phe Arg Arg His Tyr Pro Val Asn Ser Ile Thr Phe Ser Ser Thr
 705 710 715 720
 Asp Pro Gln Asp Arg Arg Trp Thr Asn Pro Asp Gly Thr Thr Ser Lys
 725 730 735
 Ile Phe Gly Phe Val Ala Lys Lys Pro Gly Ser Pro Trp Glu Asn Val
 740 745 750
 Cys His Leu Phe Ala Glu Leu Asp Pro Asp Gln Pro Ala Gly Ala Ile
 755 760 765
 Val Thr Phe Ile Thr Lys Val Leu Leu Gly Gln Arg Lys
 770 775 780

<210> 4863

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4863

```

Met Ile Lys Glu Leu Thr Gln Asn Leu Asn Thr Phe Phe Ile Glu Phe
  1             5             10             15
Ile Tyr Gly Cys Leu Leu Phe Val Glu Phe Phe Ser Ser Leu Phe Ser
          20             25             30
Phe Phe Phe Ser Phe Leu Ser Ser Leu Leu Phe Ser Phe Phe Ser Val
          35             40             45
Ala Gln Ala Gly Val Gln Trp His Asp Leu Gly Ser Leu Gln Pro Pro
          50             55             60
Pro Pro Arg Phe Lys His Leu Ser Cys Leu Ser Leu Pro Ser Ser Trp
          65             70             75             80
Asp Tyr Arg Cys Pro Pro Pro Ser Pro Ala Asn Phe Cys Ile Phe Ser
          85             90             95
Arg Asp Arg Val Ser Pro Cys Trp Leu Gly Trp Ser Arg Thr Ser Asp
          100            105            110
Leu Lys

```

<210> 4864

<211> 141

<212> PRT

<213> Homo sapiens

<400> 4864

```

Met Pro Val Ile Pro Ala Leu Gly Glu Ala Lys Gly Glu Val Leu Pro
  1             5             10             15
Pro Gly Asp Thr Thr Thr Ile Ile Pro Leu Asn Trp Met Leu Lys Ser
          20             25             30
Pro Pro Gly His Phe Gly Leu Leu Leu Leu Leu Ser Gln Gln Ala Lys
          35             40             45

```

Asn Gly Val Met Val Leu Ala Gly Val Thr Asp Pro Glu Tyr Gln Asp
 50 55 60
 Glu Ile Ser Leu Leu Leu His Asn Glu Gly His Leu Lys Glu Val Lys
 65 70 75 80
 Met Glu Gly Ala Arg Leu Gly Leu Pro Gly Arg Ala Glu Ser Leu Glu
 85 90 95
 His Gln Val Gln Ser His Leu Asn Met Ile Ala Gln Ser Gln Arg Thr
 100 105 110
 Phe Gln Lys Lys Asp Ala Gly Lys Ala Ile Ile Leu Ser Lys Leu Thr
 115 120 125
 Gln Glu Gln Lys Thr Lys His Cys Met Phe Ser Leu His
 130 135 140

<210> 4865

<211> 731

<212> PRT

<213> Homo sapiens

<400> 4865

Met His Leu Arg Leu Arg Pro Glu Val Gly Arg Ser Arg Ala Arg Ser
 1 5 10 15
 Gly Glu Pro Ala Gly Ser Ala Ala Ala Arg Glu Val Met Ala Ala Ala
 20 25 30
 Pro Ala Arg Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Cys Ser
 35 40 45
 Gly Ser Gly Ser Ser Ala Ser Arg Gly Phe Tyr Phe Asn Thr Val Leu
 50 55 60
 Ser Leu Ala Arg Ser Leu Ala Val Gln Arg Pro Ala Ser Leu Glu Lys
 65 70 75 80
 Val Arg Lys Leu Leu Cys Met Cys Pro Val Asp Phe His Gly Ile Phe
 85 90 95
 Gln Leu Asp Glu Arg Arg Arg Asp Ala Val Ile Ala Leu Gly Ile Phe
 100 105 110
 Leu Ile Glu Ser Asp Leu Gln His Lys Asp Cys Val Val Pro Tyr Leu
 115 120 125

Leu Arg Leu Leu Lys Gly Leu Pro Lys Val Tyr Trp Val Glu Glu Ser
 130 135 140
 Thr Ala Arg Lys Gly Arg Gly Ala Leu Pro Val Ala Glu Ser Phe Ser
 145 150 155 160
 Phe Cys Leu Val Thr Leu Leu Ser Asp Val Ala Tyr Arg Asp Pro Ser
 165 170 175
 Leu Arg Asp Glu Ile Leu Glu Val Leu Leu Gln Val Leu His Val Leu
 180 185 190
 Leu Gly Met Cys Gln Ala Leu Glu Ile Gln Asp Lys Glu Tyr Leu Cys
 195 200 205
 Lys Tyr Ala Ile Pro Cys Leu Ile Gly Ile Ser Arg Ala Phe Gly Arg
 210 215 220
 Tyr Ser Asn Met Glu Glu Ser Leu Leu Ser Lys Leu Phe Pro Lys Ile
 225 230 235 240
 Pro Pro His Ser Leu Arg Val Leu Glu Glu Leu Glu Gly Val Arg Arg
 245 250 255
 Arg Ser Phe Asn Asp Phe Arg Ser Ile Leu Pro Ser Asn Leu Leu Thr
 260 265 270
 Val Cys Gln Glu Gly Thr Leu Lys Arg Lys Thr Ser Ser Val Ser Ser
 275 280 285
 Ile Ser Gln Val Ser Pro Glu Arg Gly Met Pro Pro Pro Ser Ser Pro
 290 295 300
 Gly Gly Ser Ala Phe His Tyr Phe Glu Ala Ser Cys Leu Pro Asp Gly
 305 310 315 320
 Thr Ala Leu Glu Pro Glu Tyr Tyr Phe Ser Thr Ile Ser Ser Ser Phe
 325 330 335
 Ser Val Ser Pro Leu Phe Asn Gly Val Thr Tyr Lys Glu Phe Asn Ile
 340 345 350
 Pro Leu Glu Met Leu Arg Glu Leu Leu Asn Leu Val Lys Lys Ile Val
 355 360 365
 Glu Glu Ala Val Leu Lys Ser Leu Asp Ala Ile Val Ala Ser Val Met
 370 375 380
 Glu Ala Asn Pro Ser Ala Asp Leu Tyr Tyr Thr Ser Phe Ser Asp Pro
 385 390 395 400
 Leu Tyr Leu Thr Met Phe Lys Met Leu Arg Asp Thr Leu Tyr Tyr Met
 405 410 415

Lys Asp Leu Pro Thr Ser Phe Val Lys Glu Ile His Asp Phe Val Leu
 420 425 430
 Glu Gln Phe Asn Thr Ser Gln Gly Glu Leu Gln Lys Ile Leu His Asp
 435 440 445
 Ala Asp Arg Ile His Asn Glu Leu Ser Pro Leu Lys Leu Arg Cys Gln
 450 455 460
 Ala Asn Ala Ala Cys Val Asp Leu Met Val Trp Ala Val Lys Asp Glu
 465 470 475 480
 Gln Gly Ala Glu Asn Leu Cys Ile Lys Leu Ser Glu Lys Leu Gln Ser
 485 490 495
 Lys Thr Ser Ser Lys Val Ile Ile Ala His Leu Pro Leu Leu Ile Cys
 500 505 510
 Cys Leu Gln Gly Leu Gly Arg Leu Cys Glu Arg Phe Pro Val Val Val
 515 520 525
 His Ser Val Thr Pro Ser Leu Arg Asp Phe Leu Val Ile Pro Ser Pro
 530 535 540
 Val Leu Val Lys Leu Tyr Lys Tyr His Ser Gln Tyr His Thr Val Ala
 545 550 555 560
 Gly Asn Asp Ile Lys Ile Ser Val Thr Asn Glu His Ser Glu Ser Thr
 565 570 575
 Leu Asn Val Met Ser Gly Lys Lys Ser Gln Pro Ser Met Tyr Glu Gln
 580 585 590
 Leu Arg Asp Ile Ala Ile Asp Asn Ile Cys Arg Cys Leu Lys Ala Gly
 595 600 605
 Leu Thr Val Asp Pro Val Ile Val Glu Ala Phe Leu Ala Ser Leu Ser
 610 615 620
 Asn Arg Leu Tyr Ile Ser Gln Glu Ser Asp Lys Asp Ala His Leu Ile
 625 630 635 640
 Pro Asp His Thr Ile Arg Ala Leu Gly His Ile Ala Val Ala Leu Arg
 645 650 655
 Asp Thr Pro Lys Val Met Glu Pro Ile Leu Gln Ile Leu Gln Gln Lys
 660 665 670
 Phe Cys Gln Pro Pro Ser Pro Leu Asp Val Leu Ile Ile Asp Gln Leu
 675 680 685
 Gly Cys Leu Val Ile Thr Gly Asn Gln Tyr Ile Tyr Gln Glu Val Trp
 690 695 700

Asn Leu Phe Gln Gln Ile Ser Val Lys Ala Ser Ser Val Val Tyr Ser
 705 710 715 720

Ala Thr Lys Asp Tyr Lys Asp His Gly Tyr Arg
 725 730

<210> 4866

<211> 288

<212> PRT

<213> Homo sapiens

<400> 4866

Met Ser Arg Glu Leu Ala Pro Leu Leu Leu Leu Leu Ser Ile His
 1 5 10 15
 Ser Ala Leu Ala Met Arg Ile Cys Ser Phe Asn Val Arg Ser Phe Gly
 20 25 30
 Glu Ser Lys Gln Glu Asp Lys Asn Ala Met Asp Val Ile Val Lys Val
 35 40 45
 Ile Lys Arg Cys Asp Ile Ile Leu Val Met Glu Ile Lys Asp Ser Asn
 50 55 60
 Asn Arg Ile Cys Pro Ile Leu Met Glu Lys Leu Asn Arg Asn Ser Arg
 65 70 75 80
 Arg Gly Ile Thr Tyr Asn Tyr Val Ile Ser Ser Arg Leu Gly Arg Asn
 85 90 95
 Thr Tyr Lys Glu Gln Tyr Ala Phe Leu Tyr Lys Glu Lys Leu Val Ser
 100 105 110
 Val Lys Arg Ser Tyr His Tyr His Asp Tyr Gln Asp Gly Asp Ala Asp
 115 120 125
 Val Phe Ser Arg Glu Pro Phe Val Val Trp Phe Gln Ser Pro His Thr
 130 135 140
 Ala Val Lys Asp Phe Val Ile Ile Pro Leu His Thr Thr Pro Glu Thr
 145 150 155 160
 Ser Val Lys Glu Ile Asp Glu Leu Val Glu Val Tyr Thr Asp Val Lys
 165 170 175
 His Arg Trp Lys Ala Glu Asn Phe Ile Phe Met Gly Asp Phe Asn Ala
 180 185 190

<211> 143

<212> PRT

<213> Homo sapiens

<400> 4867

Met	Pro	Ser	Thr	Pro	Ser	Ser	Arg	Arg	Ser	Arg	Asn	Ser	Ser	Arg	Ser
1				5					10					15	
Pro	Pro	Gln	Thr	Ala	Asp	Cys	Trp	Ala	Ser	Ser	Lys	Ala	Arg	Thr	Pro
				20					25					30	
Ser	Ser	Thr	Glu	Leu	Gln	Pro	Cys	Leu	Glu	Gly	Arg	Pro	Pro	Ser	Cys
				35				40						45	
His	Pro	Asp	Leu	Ser	Gly	Ser	Pro	Phe	Pro	Pro	Ser	Leu	Asp	Pro	Lys
				50				55						60	
Ser	Gly	Ala	Ile	His	Gln	Glu	Cys	Arg	Pro	Leu	Val	Gly	Gly	Ala	Gly
65					70					75					80
Cys	Cys	Leu	Pro	Ile	Gly	Gln	Leu	Leu	Pro	Glu	Met	Gln	Met	Arg	Leu
				85					90					95	
Leu	Glu	Thr	Gly	Trp	Glu	Leu	Ala	Glu	Pro	Arg	Trp	Arg	Arg	Gly	Ser
				100					105					110	
Ala	Pro	Gly	His	Phe	Thr	Gly	Arg	Glu	Gly	Glu	Gly	Lys	Lys	Ser	Leu
				115				120					125		

Arg Leu Trp Asp Thr Asp Ser Gln Asn Lys His Ile Cys Gly Cys
 130 135 140

<210> 4868

<211> 281

<212> PRT

<213> Homo sapiens

<400> 4868

Met Ala Val Asp Ser Leu Leu Arg Ile Leu Lys Thr Leu Arg Leu Asp
 1 5 10 15
 Phe Ile Gln Glu Leu Glu Val Phe Tyr Trp Cys Arg Asp Phe Leu Val
 20 25 30
 Leu Ala Glu Pro Asn Leu Ser Ala Ile Gln Leu Gly Arg Ile Phe Asn
 35 40 45
 Leu Arg Ser Leu Lys Leu Phe Tyr Tyr Lys Trp Ala Phe Ser Ser Trp
 50 55 60
 Val Arg Arg Pro Ser Ser Tyr Phe Phe Ser Gln Leu Thr Met Leu Gly
 65 70 75 80
 His Leu Arg Lys Leu His Leu Ser His Ser Tyr Leu Val Gly Lys Leu
 85 90 95
 His Tyr Ile Leu Ser Cys Leu Trp Val Pro Leu His Ser Leu Glu Ile
 100 105 110
 Cys Asn Cys Lys Leu Leu Asp Thr Asp Ile Thr Tyr Leu Ser Arg Ser
 115 120 125
 His His Thr Thr Cys Leu Lys Lys Leu Asp Leu Ser Val Asn Asp Leu
 130 135 140
 Ser Tyr Met Ile Pro Gly Pro Leu Gly Thr Leu Leu Arg Ala Val Ser
 145 150 155 160
 Gly Thr Leu Gln His Leu Asp Leu Lys His Cys Trp Leu Lys Asp Ala
 165 170 175
 His Leu Ser Ala Leu Leu Pro Ala Leu Cys Arg Cys Ser His Leu Ser
 180 185 190
 Ser Leu Ser Leu Ser Asp Asn Pro Ile Ser Ser Ala Cys Leu Leu Ser
 195 200 205

Leu Leu Glu His Thr Met Gly Leu Met Glu Leu Lys Gln Val Leu Tyr
 210 215 220
 Pro Ile Pro Val Asp Cys Cys Ile Tyr Leu His Gly Val Cys Arg Gly
 225 230 235 240
 Pro Val Asn Glu Asp Lys Leu Cys Gln Leu Gln Ala Glu Ile Gln Lys
 245 250 255
 Gln Leu Gln Ala Met Gln Gln Ala Asp Met Gln Trp Ser Pro Ser Thr
 260 265 270
 Val Phe Ala Tyr Ala Ala Gly Ala Val
 275 280

<210> 4869

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4869

Met Val Gln Ala Pro Cys Leu Val Val Leu Ser Phe His Val Val Leu

1 5 10 15
 Ser Leu Gln Val His Arg Ser Gln Glu Leu Gly Phe Trp Asn Leu His
 20 25 30
 Leu Asp Phe Arg Arg Cys Met Glu Met Pro Gly Cys Pro Gly Arg Asn
 35 40 45
 Leu Leu Gln Gly Trp Gly Ser His Gly Glu Pro Leu Leu Gly Gln Cys
 50 55 60
 Arg Arg Glu Met Trp Gly Gly Ser Pro Thr Gln Ser Pro Tyr Trp Gly
 65 70 75 80
 Thr Val Leu Gln Thr Gln Asn Gly Arg Ser Thr Asp Ser Leu His Cys
 85 90 95
 Val Pro Gly Lys Ala Thr Asp Thr Gln Cys Gln Pro Met Lys Ala Thr
 100 105 110
 Arg Arg Glu Thr Val Pro Cys Lys Ala Thr Gly Ala Glu Leu Leu Lys
 115 120 125
 Thr Met Gly Thr Tyr Leu Leu Tyr Gln His Asp Leu Asp Val Arg His

130 135 140
 Gly Val Lys Gly Glu His Phe Gly Ala Leu Arg Phe Asp Cys Pro Ala
 145 150 155 160
 Gly Phe Trp Thr Cys Met Gly Pro Val Ala Pro Leu Phe Trp Pro Val
 165 170 175
 Ser Pro Ile Trp Asn Gly Tyr Ile Tyr Pro Met Pro Ile Pro Pro Leu
 180 185 190
 Tyr Pro Gly Ser Asn
 195

<210> 4870

<211> 218

<212> PRT

<213> Homo sapiens

<400> 4870

Met Trp Leu His Arg Gly Pro Leu Arg Pro Pro Gly Val Arg Trp Thr
 1 5 10 15
 Pro Trp Ala Phe Leu Glu Ala Cys Ser Trp Gly Pro Ala Leu Ser Leu
 20 25 30
 Leu Gly Ser Gly His Ser Leu Pro Gly Thr His Glu Gln Ala Ala Trp
 35 40 45
 Ser Arg Gly Cys Gly Gln His Gly Gln Ser Pro Thr Gln Lys Cys Lys
 50 55 60
 Ser Ser Lys Glu Pro Leu Ala Gln Ala Pro Pro His Gln Gly Phe Ala
 65 70 75 80
 Asp Val Leu Glu Arg Pro Thr Leu Glu Pro Phe Gly Val Leu Ala Pro
 85 90 95
 Pro Val Pro Ser Ala Leu Val Glu Ala Ala Ala Thr Ser Pro Pro Gln
 100 105 110
 Gly Ala Pro Arg Gly Ile Leu Trp Asp Arg Cys Pro Gln Ile Gln Val
 115 120 125
 Leu Glu Gly Gln Arg Val Arg Phe Pro Ser Gln Pro Gln His Pro Ser
 130 135 140
 His Leu Ala Pro Arg Gly Gly Cys Gly Trp Arg Pro Asp Ser Arg Pro

145 150 155 160
 Leu Leu Pro Thr Pro Ser Gly Leu Ser Ser Phe Phe Pro Leu Asp Ala
 165 170 175
 Gln Cys Trp Pro Trp Arg Thr Val Ser Trp Arg Met Ala Val Gly Glu
 180 185 190
 Ala Val Phe Val Pro Leu Gln His Pro Pro Leu Leu His Gly Ser Pro
 195 200 205
 Ile Pro Lys Leu Leu Pro Gly Pro Leu Leu
 210 215

<210> 4871

<211> 349

<212> PRT

<213> Homo sapiens

<400> 4871

Met Ala Met Ala Phe Thr Asp Leu Leu Asp Ala Leu Gly Ser Met Gly
 1 5 10 15
 Arg Phe Gln Leu Asn His Thr Ala Leu Leu Leu Leu Pro Cys Gly Leu
 20 25 30
 Leu Ala Cys His Asn Phe Leu Gln Asn Phe Thr Ala Ala Val Pro Pro
 35 40 45
 His His Cys Arg Gly Pro Ala Asn His Thr Glu Ala Ser Thr Asn Asp
 50 55 60
 Ser Gly Ala Trp Leu Arg Ala Thr Ile Pro Leu Asp Gln Leu Gly Ala
 65 70 75 80
 Pro Glu Pro Cys Arg Arg Phe Thr Lys Pro Gln Trp Ala Leu Leu Ser
 85 90 95
 Pro Asn Ser Ser Ile Pro Gly Ala Ala Thr Glu Gly Cys Lys Asp Gly
 100 105 110
 Trp Val Tyr Asn Arg Ser Val Phe Pro Ser Thr Ile Val Met Glu Trp
 115 120 125
 Asp Leu Val Cys Glu Ala Arg Thr Leu Arg Asp Leu Ala Gln Ser Val
 130 135 140
 Tyr Met Ala Gly Val Leu Val Gly Ala Ala Val Phe Gly Ser Leu Ala

145 150 155 160
 Asp Arg Leu Gly Cys Lys Gly Pro Leu Val Trp Ser Tyr Leu Gln Leu
 165 170 175
 Ala Ala Ser Gly Ala Ala Thr Ala Tyr Phe Ser Ser Phe Ser Ala Tyr
 180 185 190
 Cys Val Phe Arg Phe Leu Met Gly Met Thr Phe Ser Gly Ile Ile Leu
 195 200 205
 Asn Ser Val Ser Leu Val Ala Ser Arg Val Ile Pro Leu Ala Pro Pro
 210 215 220
 Ala Trp Gln Val Pro Val Ser Cys Thr Glu Ser Ala Glu Gly Gly Cys
 225 230 235 240
 Asn Glu Arg Glu Glu Gly Gly Arg Gly Lys Ala Asp Gln Gly Gly Asp
 245 250 255
 Glu Leu Leu His Pro Lys Arg Val Cys Lys Cys Leu His Leu Gln Leu
 260 265 270
 Asn Leu Gly Pro Leu Pro Asn Pro Gly His Pro Gln Gly His Met Leu
 275 280 285
 Ser His Gly Asp Leu Arg Gly Arg Gln Arg Ser Ser Gly Ser Gly Glu
 290 295 300
 Gln Gly Gly Ser Cys Glu Pro Glu Ser Arg Asn Gly Arg Leu Pro Ala
 305 310 315 320
 Val Ala Pro Ala Gly Leu Gly Leu Pro Phe Val His Leu Pro Leu Ser
 325 330 335
 Ala Arg Glu Lys Gln Ile Leu Ser Ser Lys Phe Gln Ser
 340 345

<210> 4872

<211> 421

<212> PRT

<213> Homo sapiens

<400> 4872

Met Arg Tyr Ser Leu Ser Pro Asp Asn His Leu Glu Asp Gly Ile Met
 1 5 10 15
 Asn Met Ala Asn Phe Leu Arg Gly Phe Glu Glu Lys Gly Ile Lys Asn

20	25	30
Asp Arg Pro Glu Asp Gln Leu Ser Lys Glu Lys Lys Lys Ile Leu Phe		
35	40	45
Ser Phe Cys Glu Val Cys Asn Ile Gln Leu Asn Ser Ala Ala Gln Ala		
50	55	60
Gln Val His Ser Asn Gly Lys Ser His Arg Lys Arg Val Lys Gln Leu		
65	70	75
Ser Asp Gly Gln Pro Pro Pro Pro Ala Gln Ala Ser Pro Ser Ser Asn		
85	90	95
Ser Ser Thr Gly Ser Thr Cys His Thr Thr Thr Leu Pro Ala Leu Val		
100	105	110
Arg Thr Pro Thr Leu Met Met Gln Pro Ser Leu Asp Ile Lys Pro Phe		
115	120	125
Met Ser Phe Pro Val Asp Ser Ser Ser Ala Val Gly Leu Phe Pro Asn		
130	135	140
Phe Asn Thr Met Asp Pro Val Gln Lys Ala Val Ile Asn His Thr Phe		
145	150	155
Gly Val Ser Ile Pro Pro Lys Lys Lys Gln Val Ile Ser Cys Asn Val		
165	170	175
Cys Gln Leu Arg Phe Asn Ser Asp Ser Gln Ala Glu Ala His Tyr Lys		
180	185	190
Gly Ser Lys His Ala Lys Lys Val Lys Ala Leu Asp Ala Thr Lys Asn		
195	200	205
Lys Pro Lys Met Val Pro Ser Lys Asp Ser Ala Lys Ala Asn Pro Ser		
210	215	220
Cys Ser Ile Thr Pro Ile Thr Gly Asn Asn Ser Asp Lys Ser Glu Asp		
225	230	235
Lys Gly Lys Leu Lys Ala Ser Ser Ser Ser Gln Pro Ser Ser Ser Glu		
245	250	255
Ser Gly Ser Phe Leu Leu Lys Ser Gly Thr Thr Pro Leu Pro Pro Gly		
260	265	270
Ala Ala Thr Ser Pro Ser Lys Ser Thr Asn Gly Ala Pro Gly Thr Val		
275	280	285
Val Glu Ser Glu Glu Glu Lys Ala Lys Lys Leu Leu Tyr Cys Ser Leu		
290	295	300
Cys Lys Val Ala Val Asn Ser Leu Ser Gln Leu Glu Ala His Asn Thr		

305 310 315 320
 Gly Ser Lys His Lys Thr Met Val Glu Ala Arg Asn Gly Ala Gly Pro
 325 330 335
 Ile Lys Ser Tyr Pro Arg Pro Gly Ser Arg Leu Lys Met Gln Asn Gly
 340 345 350
 Ser Lys Gly Ser Gly Leu Gln Asn Lys Thr Phe His Cys Glu Ile Cys
 355 360 365
 Asp Val His Val Asn Ser Glu Ile Gln Leu Lys Gln His Ile Ser Ser
 370 375 380
 Arg Arg His Lys Asp Arg Val Ala Gly Lys Pro Leu Lys Pro Lys Tyr
 385 390 395 400
 Thr Pro Cys Lys Val Ile Gly Leu Leu Pro Lys Pro Leu Pro Pro Ala
 405 410 415
 Asn Arg Gln Leu Ser
 420

<210> 4873

<211> 277

<212> PRT

<213> Homo sapiens

<400> 4873

Met Gly Lys Asn Leu Lys Gly Ile Leu Thr Thr Glu Asn Ile Leu Ser
 1 5 10 15
 Ile Asp Asn Ser Val Asn Lys Lys Asp Leu Ser Ile Cys Gly Ser Ser
 20 25 30
 Gly Glu Glu Phe Phe Asn Asn Cys Glu Val Leu Gln Cys Gly Phe Ser
 35 40 45
 Val Pro Arg Glu Asn Ile Arg Thr Arg His Lys Ile Cys Pro Cys Asp
 50 55 60
 Lys Cys Glu Lys Val Phe Pro Ser Ile Ser Lys Leu Lys Arg His Tyr
 65 70 75 80
 Leu Ile His Thr Gly Gln Arg Pro Phe Gly Cys Asn Ile Cys Gly Lys
 85 90 95
 Ser Phe Arg Gln Ser Ala His Leu Lys Arg His Glu Gln Thr His Asn

100	105	110
Glu Lys Ser Pro Tyr Ala Ser Leu Cys Gln Val Glu Phe Gly Asn Phe		
115	120	125
Asn Asn Leu Ser Asn His Ser Gly Asn Asn Val Asn Tyr Asn Ala Ser		
130	135	140
Gln Gln Cys Gln Ala Pro Gly Val Gln Lys Tyr Glu Val Ser Glu Ser		
145	150	155
Asp Gln Met Ser Gly Val Lys Ala Glu Ser Gln Asp Phe Ile Pro Gly		
165	170	175
Ser Thr Gly Gln Pro Cys Leu Pro Asn Val Leu Leu Glu Ser Glu Gln		
180	185	190
Ser Asn Pro Phe Cys Ser Tyr Ser Glu His Gln Glu Lys Asn Asp Val		
195	200	205
Phe Leu Tyr Arg Cys Ser Val Cys Ala Lys Ser Phe Arg Ser Pro Ser		
210	215	220
Lys Leu Glu Arg His Tyr Leu Ile His Ala Gly Gln Lys Pro Phe Glu		
225	230	235
Cys Ser Val Cys Gly Lys Thr Phe Arg Gln Ala Pro His Trp Lys Arg		
245	250	255
His Gln Leu Thr His Phe Lys Glu Arg Pro Gln Gly Lys Val Val Ala		
260	265	270
Leu Asp Ser Val Met		
275		

<210> 4874

<211> 933

<212> PRT

<213> Homo sapiens

<400> 4874

Met Ala Trp Lys Thr Leu Pro Ile Tyr Leu Leu Leu Leu Leu Ser Val
1 5 10 15
Phe Val Ile Gln Gln Val Ser Ser Gln Glu Leu Ser Cys Lys Gly Arg
20 25 30
Cys Phe Glu Ser Phe Glu Arg Gly Arg Glu Cys Asp Cys Asp Ala Gln

35	40	45			
Cys Lys Lys Tyr Asp Lys Cys Cys Pro Asp Tyr Glu Ser Phe Cys Ala					
50	55	60			
Glu Val His Asn Pro Thr Ser Pro Pro Ser Ser Lys Lys Ala Pro Pro					
65	70	75	80		
Pro Ser Gly Ala Ser Gln Thr Ile Lys Ser Thr Thr Lys Arg Ser Pro					
85	90	95			
Lys Pro Pro Asn Lys Lys Lys Thr Lys Lys Val Ile Glu Ser Glu Glu					
100	105	110			
Ile Thr Glu Glu His Ser Val Ser Glu Asn Gln Glu Ser Ser Ser Ser					
115	120	125			
Ser Ser Ser Ser Ser Ser Ser Ser Thr Ile Arg Lys Ile Lys Ser Ser					
130	135	140			
Lys Asn Ser Ala Ala Asn Arg Glu Leu Gln Lys Lys Leu Lys Val Lys					
145	150	155	160		
Asp Asn Lys Lys Asn Arg Thr Lys Lys Lys Pro Thr Pro Lys Pro Pro					
165	170	175			
Val Val Asp Glu Ala Gly Ser Gly Leu Asp Asn Gly Asp Phe Lys Val					
180	185	190			
Thr Thr Pro Asp Thr Ser Thr Thr Gln His Asn Lys Val Ser Thr Ser					
195	200	205			
Pro Lys Ile Thr Thr Ala Lys Pro Ile Asn Pro Arg Pro Ser Leu Pro					
210	215	220			
Pro Asn Ser Asp Thr Ser Lys Glu Thr Ser Leu Thr Val Asn Lys Glu					
225	230	235	240		
Thr Thr Val Glu Thr Lys Glu Thr Thr Thr Thr Asn Lys Gln Thr Ser					
245	250	255			
Thr Asp Gly Lys Glu Lys Thr Thr Ser Ala Lys Glu Thr Gln Ser Ile					
260	265	270			
Glu Lys Thr Ser Ala Lys Asp Leu Ala Pro Thr Ser Lys Val Leu Ala					
275	280	285			
Lys Pro Thr Pro Lys Ala Glu Thr Thr Thr Lys Gly Pro Ala Leu Thr					
290	295	300			
Thr Pro Lys Glu Pro Thr Pro Thr Thr Pro Lys Glu Pro Ala Ser Thr					
305	310	315	320		
Thr Pro Lys Glu Pro Thr Pro Thr Thr Ile Lys Ser Ala Pro Thr Thr					

325	330	335
Pro Lys Glu Pro Ala Pro Thr Thr Thr	Lys Ser Ala Pro Thr Thr Pro	
340	345	350
Lys Glu Pro Ala Pro Thr Thr Thr	Lys Glu Pro Ala Pro Thr Thr Pro	
355	360	365
Lys Glu Pro Ala Pro Thr Thr Pro	Glu Thr Pro Pro Pro Thr Thr Ser	
370	375	380
Glu Val Ser Thr Pro Thr Thr Thr	Lys Glu Pro Thr Thr Ile His Lys	
385	390	395
Ser Pro Asp Glu Ser Thr Pro Glu Leu	Ser Ala Glu Pro Thr Pro Lys	
405	410	415
Ala Leu Glu Asn Ser Pro Lys Glu Pro	Gly Val Pro Thr Thr Lys Thr	
420	425	430
Pro Ala Ala Thr Lys Pro Glu Met Thr	Thr Thr Thr Ala Lys Asp Lys Thr	
435	440	445
Thr Glu Arg Asp Leu Arg Thr Thr Pro	Glu Thr Thr Thr Ala Ala Pro	
450	455	460
Lys Met Thr Lys Glu Thr Ala Thr Thr	Thr Glu Lys Thr Thr Glu Ser	
465	470	475
Lys Ile Thr Ala Thr Thr Thr Gln Val	Thr Ser Thr Thr Thr Gln Asp	
485	490	495
Thr Thr Pro Phe Lys Ile Thr Thr Leu	Lys Thr Thr Thr Leu Ala Pro	
500	505	510
Lys Val Thr Thr Thr Lys Lys Thr Ile	Thr Thr Thr Glu Ile Met Asn	
515	520	525
Lys Pro Glu Glu Thr Ala Lys Pro Lys	Asp Arg Ala Thr Asn Ser Lys	
530	535	540
Ala Thr Thr Pro Lys Pro Gln Lys Pro	Thr Lys Ala Pro Lys Lys Pro	
545	550	555
Thr Ser Thr Lys Lys Pro Lys Thr Met	Pro Arg Val Arg Lys Pro Lys	
565	570	575
Thr Thr Pro Thr Pro Arg Lys Met Thr	Ser Thr Met Pro Glu Leu Asn	
580	585	590
Pro Thr Ser Arg Ile Ala Glu Ala Met	Leu Gln Thr Thr Thr Arg Pro	
595	600	605

Asn Gln Thr Pro Asn Ser Lys Leu Val Glu Val Asn Pro Lys Ser Glu
 610 615 620
 Asp Ala Gly Gly Ala Glu Gly Glu Thr Pro His Met Leu Leu Arg Pro
 625 630 635 640
 His Val Phe Met Pro Glu Val Thr Pro Asp Met Asp Tyr Leu Pro Arg
 645 650 655
 Val Pro Asn Gln Gly Ile Ile Ile Asn Pro Met Leu Ser Asp Glu Thr
 660 665 670
 Asn Ile Cys Asn Gly Lys Pro Val Asp Gly Leu Thr Thr Leu Arg Asn
 675 680 685
 Gly Thr Leu Val Ala Phe Arg Gly His Tyr Phe Trp Met Leu Ser Pro
 690 695 700
 Phe Ser Pro Pro Ser Pro Ala Arg Arg Ile Thr Glu Val Trp Gly Ile
 705 710 715 720
 Pro Ser Pro Ile Asp Thr Val Phe Thr Arg Cys Asn Cys Glu Gly Lys
 725 730 735
 Thr Phe Phe Phe Lys Asp Ser Gln Tyr Trp Arg Phe Thr Asn Asp Ile
 740 745 750
 Lys Asp Ala Gly Tyr Pro Lys Pro Ile Phe Lys Gly Phe Gly Gly Leu
 755 760 765
 Thr Gly Gln Ile Val Ala Ala Leu Ser Thr Ala Lys Tyr Lys Asn Trp
 770 775 780
 Pro Glu Ser Val Tyr Phe Phe Lys Arg Gly Gly Ser Ile Gln Gln Tyr
 785 790 795 800
 Ile Tyr Lys Gln Glu Pro Val Gln Lys Cys Pro Gly Arg Arg Pro Ala
 805 810 815
 Leu Asn Tyr Pro Val Tyr Gly Glu Thr Thr Gln Val Arg Arg Arg Arg
 820 825 830
 Phe Glu Arg Ala Ile Gly Pro Ser Gln Thr His Thr Ile Arg Ile Gln
 835 840 845
 Tyr Ser Pro Ala Arg Leu Ala Tyr Gln Asp Lys Gly Val Leu His Asn
 850 855 860
 Glu Val Lys Val Ser Ile Leu Trp Arg Gly Leu Pro Asn Val Val Thr
 865 870 875 880
 Ser Ala Ile Ser Leu Pro Asn Ile Arg Lys Pro Asp Gly Tyr Asp Tyr
 885 890 895

Tyr Ala Phe Ser Lys Asp Gln Tyr Tyr Asn Ile Asp Val Pro Ser Arg
 900 905 910
 Thr Ala Arg Ala Ile Thr Thr Arg Ser Gly Gln Thr Leu Ser Lys Val
 915 920 925
 Trp Tyr Asn Cys Pro
 930

<210> 4875

<211> 216

<212> PRT

<213> Homo sapiens

<400> 4875

Met Arg Trp Trp His Arg Cys Gly Gln Pro Gly Thr Asp Val Val Leu
 1 5 10 15
 Thr Gly Lys Asn Leu Pro Arg Pro Thr Leu Ser Thr Pro Ala Glu Ser
 20 25 30
 Ser Gln Pro Gly Gln Gly Ala His Val Gly Pro Asn Ala His Ala Pro
 35 40 45
 His Ser Cys Gly Glu Leu Thr Ala Arg Pro Arg Gly Ala Arg Gly Ala
 50 55 60
 Gln Arg Pro Arg Ser Pro Leu Leu Arg Arg Ala His Ser Gln Ala Arg
 65 70 75 80
 Gly Arg Thr Trp Gly Pro Thr Pro Thr Leu Pro Thr Pro Ala Glu Ser
 85 90 95
 Ser Gln Pro Gly Gln Gly Ala His Val Gly Pro Asn Ala His Ala Pro
 100 105 110
 His Ser Cys Gly Glu Leu Thr Ala Arg Pro Gly Gly Ala Arg Gly Ala
 115 120 125
 Gln Arg Pro His Ser Pro Leu Leu Arg Arg Ala His Ser Gln Ala Arg
 130 135 140
 Gly Arg Thr Trp Gly Pro Thr Phe Arg Asn Lys Ile Ile Val Tyr Ser
 145 150 155 160
 Phe Leu Phe Phe Leu Lys Ser Val Phe Leu Leu Arg Thr Pro Asp Val
 165 170 175

Cys Gly Ser Glu Ala Gln Trp Ala Tyr Ser Tyr Leu Thr Trp Gln Thr
 180 185 190
 Trp Lys Trp Lys Leu Leu Cys Ile Thr Arg Ile Ser Arg Ala Ser Ala
 195 200 205
 Ser Cys Trp Pro Asp Arg Val Pro
 210 215

<210> 4876

<211> 904

<212> PRT

<213> Homo sapiens

<400> 4876

Met Ala Glu Ala Leu Leu Ala Cys Cys Pro Gly Asp Gln Lys Pro Gly
 1 5 10 15
 Ile Leu Ala Arg Leu Lys Asp Ile Lys Ala Gln Trp Glu Glu Thr Val
 20 25 30
 Thr Tyr Met Thr His Cys His Ser Arg Ile Glu Trp Val Trp Leu His
 35 40 45
 Trp Ser Glu Tyr Leu Leu Ala Arg Asp Glu Phe Tyr Arg Trp Phe Gln
 50 55 60
 Lys Met Met Val Thr Leu Glu Pro His Ile Glu Leu Gln Leu Gly Leu
 65 70 75 80
 Lys Glu Lys Gln Trp Gln Leu Ser His Ala Gln Val Leu Leu His Asn
 85 90 95
 Val Asp Asn Gln Ala Val Leu Leu Asp Arg Leu Leu Glu Glu Ala Ala
 100 105 110
 Ser Leu Phe Asn Arg Ile Gly Asp Pro Ser Val Asp Glu Asp Ala Gln
 115 120 125
 Lys Arg Met Lys Ala Glu Tyr Asp Ala Val Lys Ala Lys Ala Gln Lys
 130 135 140
 Arg Val Asp Leu Leu Glu Gln Val Ala Arg Glu His Glu Glu Tyr Gln
 145 150 155 160
 Ala Gly Val Asp Glu Phe Gln Leu Trp Leu Lys Ala Val Val Glu Lys
 165 170 175

Val Asn Gly Cys Leu Gly Arg Asn Cys Lys Leu Pro Ile Thr Gln Arg
 180 185 190
 Leu Ser Thr Leu Gln Asp Ile Ala Lys Asp Phe Pro Arg Gly Glu Glu
 195 200 205
 Ser Leu Glu Thr Leu Glu Glu Gln Ser Ala Gly Val Ile Arg Asn Thr
 210 215 220
 Ser Pro Leu Gly Ala Glu Lys Ile Thr Gly Glu Leu Glu Glu Met Arg
 225 230 235 240
 Lys Val Leu Glu Lys Leu Arg Ala Leu Trp Glu Glu Glu Glu Glu Arg
 245 250 255
 Leu Arg Gly Leu Leu Arg Ser Arg Gly Ala Trp Glu Gln Gln Ile Lys
 260 265 270
 Gln Leu Glu Ala Glu Leu Ser Glu Phe Arg Met Val Leu Gln Arg Leu
 275 280 285
 Ala Gln Glu Gly Leu Gln Pro Ala Ala Lys Ala Gly Thr Glu Asp Glu
 290 295 300
 Leu Val Ala His Trp Arg Arg Tyr Ser Ala Thr Arg Ala Ala Leu Ala
 305 310 315 320
 Ser Glu Glu Pro Arg Val Asp Arg Leu Gln Ala Gln Leu Lys Glu Leu
 325 330 335
 Ile Val Phe Pro His Asn Leu Lys Pro Leu Ser Asp Ser Val Ile Ala
 340 345 350
 Thr Ile Gln Glu Tyr Gln Ser Leu Lys Val Lys Ser Ala Arg Leu Arg
 355 360 365
 Asn Ala Ala Ala Val Glu Leu Trp Gln His Phe Gln Arg Pro Leu Gln
 370 375 380
 Asp Leu Gln Leu Trp Lys Ala Leu Ala Gln Arg Leu Leu Glu Val Thr
 385 390 395 400
 Ala Ser Leu Pro Asp Leu Pro Ser Leu His Thr Phe Leu Pro Gln Ile
 405 410 415
 Glu Ala Ala Leu Met Glu Ser Ser Arg Leu Lys Glu Leu Leu Thr Met
 420 425 430
 Leu Gln Leu Lys Lys Asp Leu Leu Ile Gly Ile Phe Gly Gln Glu Arg
 435 440 445
 Ala Thr Ala Leu Leu Glu Gln Val Ala Gly Ser Met Arg Asp Arg Asp
 450 455 460

Leu Leu His Asn Ser Leu Leu Gln Arg Lys Ser Lys Leu Gln Ser Leu
 465 470 475 480
 Leu Ala Gln His Lys Asp Phe Gly Ala Ala Phe Glu Pro Leu Gln Arg
 485 490 495
 Lys Leu Leu Asp Leu Gln Val Arg Val Gln Ala Glu Lys Gly Leu Gln
 500 505 510
 Arg Asp Leu Pro Gly Lys Gln Ala Gln Leu Ser Arg Leu Gln Gly Leu
 515 520 525
 Gln Glu Glu Gly Leu Asp Leu Gly Ala Gln Met Glu Ala Ala Arg Pro
 530 535 540
 Leu Val Gln Glu Asn Pro Asn His Gln His Lys Met Asp Gln Leu Ser
 545 550 555 560
 Ser Asp Phe Gln Ala Leu Gln Arg Ser Leu Glu Asp Leu Val Asp Arg
 565 570 575
 Cys Arg Gln Ser Val Gln Glu His Cys Thr Phe Ser His Gln Leu Leu
 580 585 590
 Glu Leu Arg Gln Trp Ile Val Val Thr Met Gln Lys Leu Glu Ala His
 595 600 605
 Arg Gly Glu Ala Gly Pro Gly Asp Ala Glu Ser Gln Glu Ala Glu Phe
 610 615 620
 Glu Arg Leu Val Ala Glu Phe Pro Glu Lys Glu Ala Gln Leu Ser Leu
 625 630 635 640
 Val Glu Ala Gln Gly Trp Leu Val Met Glu Lys Ser Ser Pro Glu Gly
 645 650 655
 Ala Ala Val Val Gln Glu Glu Leu Arg Glu Leu Ala Glu Ser Trp Arg
 660 665 670
 Ala Leu Arg Leu Leu Glu Glu Ser Leu Leu Ser Leu Ile Arg Asn Trp
 675 680 685
 His Leu Gln Arg Met Glu Val Asp Ser Gly Lys Lys Met Val Phe Thr
 690 695 700
 Asn Asn Ile Pro Lys Ser Gly Phe Leu Ile Asn Pro Met Asp Pro Ile
 705 710 715 720
 Pro Arg His Arg Arg Arg Glu Glu Glu Gly Ser His Glu Asp Phe Ser
 725 730 735
 Gln Leu Leu Arg Asn Phe Gly Gln Trp Leu Gln Val Glu Asn Ser Lys
 740 745 750

Leu Val Arg Ile Ile Ala Met Arg Thr Ser Thr Ala Glu Asp Leu Arg
 755 760 765
 Thr Arg Lys Ser Lys Leu Gln Glu Leu Glu Ala Arg Val Pro Glu Gly
 770 775 780
 Gln His Leu Phe Glu Asn Leu Leu Arg Leu Gly Pro Ala Arg Gly Thr
 785 790 795 800
 Ser Asp Glu Leu Glu Asp Leu Arg Tyr Gln Trp Met Leu Tyr Lys Ser
 805 810 815
 Lys Leu Lys Asp Ser Gly His Leu Leu Thr Gln Ser Ser Pro Gly Glu
 820 825 830
 Pro Thr Gly Phe Gln Lys Thr Arg Arg Trp Arg Gly Leu Gly Ser Leu
 835 840 845
 Phe Arg Arg Ala Cys Cys Val Ala Leu Pro Leu Gln Leu Leu Leu Leu
 850 855 860
 Leu Phe Leu Leu Leu Leu Phe Leu Leu Pro Ile Arg Glu Glu Asp Arg
 865 870 875 880
 Ser Cys Thr Leu Ala Asn Asn Phe Ala Arg Ser Phe Thr Leu Met Leu
 885 890 895
 Arg Tyr Asn Gly Pro Pro Pro Thr
 900

<210> 4877

<211> 164

<212> PRT

<213> Homo sapiens

<400> 4877

Met Ser Glu Pro Ser Pro Cys Pro Pro Glu Gly Val Gln Leu Cys Gly
 1 5 10 15
 Pro Ala Leu Tyr Arg Leu Val Pro Cys Val Cys Ala Val Ser Val Cys
 20 25 30
 Leu Leu Pro Gln Val Leu Lys Lys Tyr Pro Arg Leu Trp Cys Met Thr
 35 40 45
 Lys Pro Pro Ser Arg Arg Pro Lys Leu Tyr Ile Val Asn Leu Gln Trp
 50 55 60

Thr Pro Lys Asp Asp Trp Ala Ala Leu Lys Leu His Gly Lys Cys Asp
 65 70 75 80
 Asp Val Met Arg Leu Leu Met Ala Glu Leu Gly Leu Glu Ile Pro Ala
 85 90 95
 Tyr Ser Arg Trp Gln Asp Pro Ile Phe Ser Leu Ala Thr Pro Leu Arg
 100 105 110
 Ala Gly Glu Glu Gly Ser His Ser Arg Lys Ser Leu Cys Arg Ser Arg
 115 120 125
 Glu Glu Ala Pro Pro Gly Asp Arg Gly Ala Pro Leu Ser Ser Ala Pro
 130 135 140
 Ile Leu Gly Gly Trp Phe Gly Arg Gly Cys Thr Lys Arg Thr Lys Arg
 145 150 155 160
 Lys Lys Val Thr

<210> 4878

<211> 477

<212> PRT

<213> Homo sapiens

<400> 4878

Met Lys Leu Ile Arg Ser Ser Ser Cys His Val Gly Ser Ala Arg Lys
 1 5 10 15
 Leu His His Trp Arg Ala Gly Gln Thr Glu Pro Gly Trp Ala Gly Thr
 20 25 30
 Arg His Asp Ser Pro Val Pro Leu Pro Pro Arg Gly Gly Leu Ala Ala
 35 40 45
 Asp Asn Val Leu Leu Ser Ser Asp Gly Ser His Ala Ala Leu Cys Asp
 50 55 60
 Phe Gly His Ala Val Cys Leu Gln Pro Asp Gly Leu Gly Lys Ser Leu
 65 70 75 80
 Leu Thr Gly Asp Tyr Ile Pro Gly Thr Glu Thr His Met Ala Pro Glu
 85 90 95
 Val Val Leu Gly Arg Ser Cys Asp Ala Lys Val Asp Val Trp Ser Ser
 100 105 110

Cys Cys Met Met Leu His Met Leu Asn Gly Cys His Pro Trp Thr Gln
 115 120 125
 Phe Phe Arg Gly Pro Leu Cys Leu Lys Ile Ala Ser Glu Pro Pro Pro
 130 135 140
 Val Arg Glu Ile Pro Pro Ser Cys Ala Pro Leu Thr Ala Gln Ala Ile
 145 150 155 160
 Gln Glu Gly Leu Arg Lys Glu Pro Ile His Arg Val Ser Ala Ala Glu
 165 170 175
 Leu Gly Gly Lys Val Asn Arg Ala Leu Gln Gln Val Gly Gly Leu Lys
 180 185 190
 Ser Pro Trp Arg Gly Glu Tyr Lys Glu Pro Arg His Pro Pro Pro Asn
 195 200 205
 Gln Ala Asn Tyr His Gln Thr Leu His Ala Gln Pro Arg Glu Leu Ser
 210 215 220
 Pro Arg Ala Pro Gly Pro Arg Pro Ala Glu Glu Thr Thr Gly Arg Ala
 225 230 235 240
 Pro Lys Leu Gln Pro Pro Leu Pro Pro Glu Pro Pro Glu Pro Asn Lys
 245 250 255
 Ser Pro Pro Leu Thr Leu Ser Lys Glu Glu Ser Gly Met Trp Glu Pro
 260 265 270
 Leu Pro Leu Ser Ser Leu Glu Pro Ala Pro Ala Arg Asn Pro Ser Ser
 275 280 285
 Pro Glu Arg Lys Ala Thr Val Pro Glu Gln Glu Leu Gln Gln Leu Glu
 290 295 300
 Ile Glu Leu Phe Leu Asn Ser Leu Ser Gln Pro Phe Ser Leu Glu Glu
 305 310 315 320
 Gln Glu Gln Ile Leu Ser Cys Leu Ser Ile Asp Ser Leu Ser Leu Ser
 325 330 335
 Asp Asp Ser Glu Lys Asn Pro Ser Lys Ala Ser Gln Ser Ser Arg Asp
 340 345 350
 Thr Leu Ser Ser Gly Val His Ser Trp Ser Ser Gln Ala Glu Ala Arg
 355 360 365
 Ser Ser Ser Trp Asn Met Val Leu Ala Arg Gly Arg Pro Thr Asp Thr
 370 375 380
 Pro Ser Tyr Phe Asn Gly Val Lys Val Gln Ile Gln Ser Leu Asn Gly

385 390 395 400
 Glu His Leu His Ile Arg Glu Phe His Arg Val Lys Val Gly Asp Ile
 405 410 415
 Ala Thr Gly Ile Ser Ser Gln Ile Pro Ala Ala Ala Phe Ser Leu Val
 420 425 430
 Thr Lys Asp Gly Gln Pro Val Arg Tyr Asp Met Glu Val Pro Asp Ser
 435 440 445
 Gly Ile Asp Leu Gln Cys Thr Leu Ala Pro Asp Gly Ser Phe Ala Trp
 450 455 460
 Ser Trp Arg Val Lys His Gly Gln Leu Glu Asn Arg Pro
 465 470 475

<210> 4879

<211> 486

<212> PRT

<213> Homo sapiens

<400> 4879

Met Gly Ser Glu Lys Asp Ser Glu Ser Pro Arg Ser Thr Ser Leu His
 1 5 10 15
 Ala Ala Ala Pro Asp Pro Lys Cys Arg Ser Gly Gly Arg Arg Arg Arg
 20 25 30
 Leu Leu Ser Cys Pro His Arg Ser Cys Arg Asp Cys Leu Arg His Tyr
 35 40 45
 Leu Arg Leu Glu Ile Ser Glu Ser Arg Val Pro Ile Ser Cys Pro Glu
 50 55 60
 Cys Ser Glu Arg Leu Asn Pro His Asp Ile Arg Leu Leu Leu Ala Asp
 65 70 75 80
 Pro Pro Leu Met His Lys Tyr Glu Glu Phe Met Leu Arg Arg Tyr Leu
 85 90 95
 Ala Ser Asp Pro Asp Cys Arg Trp Cys Pro Ala Pro Asp Cys Gly Tyr
 100 105 110
 Ala Val Ile Ala Tyr Gly Cys Ala Ser Cys Pro Lys Leu Thr Cys Glu
 115 120 125
 Arg Glu Gly Cys Gln Thr Glu Phe Cys Tyr His Cys Lys Gln Ile Trp

130	135	140	
His Pro Asn Gln Thr Cys Asp Met Ala Arg Gln Gln Arg Ala Gln Thr			
145	150	155	160
Leu Arg Val Arg Thr Lys His Thr Ser Gly Leu Ser Tyr Gly Gln Glu			
	165	170	175
Ser Gly Pro Asp Asp Ile Lys Pro Cys Pro Arg Cys Ser Ala Tyr Ile			
	180	185	190
Ile Lys Met Asn Asp Gly Ser Cys Asn His Met Thr Cys Ala Val Cys			
	195	200	205
Gly Cys Glu Phe Cys Trp Leu Cys Met Lys Glu Ile Ser Asp Leu His			
	210	215	220
Tyr Leu Ser Pro Ser Gly Cys Thr Phe Trp Gly Lys Lys Pro Trp Ser			
225	230	235	240
Arg Lys Lys Lys Ile Leu Trp Gln Leu Gly Thr Leu Ile Gly Ala Pro			
	245	250	255
Val Gly Ile Ser Leu Ile Ala Gly Ile Ala Ile Pro Ala Met Val Ile			
	260	265	270
Gly Ile Pro Val Tyr Val Gly Arg Lys Ile His Ser Arg Tyr Glu Gly			
	275	280	285
Arg Lys Thr Ser Lys His Lys Arg Asn Leu Ala Ile Thr Gly Gly Val			
	290	295	300
Thr Leu Ser Val Ile Ala Ser Pro Val Ile Ala Ala Val Ser Val Gly			
305	310	315	320
Ile Gly Val Pro Ile Met Leu Ala Tyr Val Tyr Gly Val Val Pro Ile			
	325	330	335
Ser Leu Cys Arg Gly Gly Gly Cys Gly Val Ser Thr Ala Asn Gly Lys			
	340	345	350
Gly Val Lys Ile Glu Phe Asp Glu Asp Asp Gly Pro Ile Thr Val Ala			
	355	360	365
Asp Ala Trp Arg Ala Leu Lys Asn Pro Ser Ile Gly Glu Ser Ser Ile			
	370	375	380
Glu Gly Leu Thr Ser Val Leu Ser Thr Ser Gly Ser Pro Thr Asp Gly			
385	390	395	400
Leu Ser Val Met Gln Gly Pro Tyr Ser Glu Thr Ala Ser Phe Ala Ala			
	405	410	415
Leu Ser Gly Gly Thr Leu Ser Gly Gly Ile Leu Ser Ser Gly Lys Gly			

420 425 430
 Lys Tyr Ser Arg Leu Glu Val Gln Ala Asp Val Gln Lys Glu Ile Phe
 435 440 445
 Pro Lys Asp Thr Ala Ser Leu Gly Ala Ile Ser Asp Asn Ala Ser Thr
 450 455 460
 Arg Ala Met Ala Gly Ser Ile Ile Ser Ser Tyr Asn Pro Gln Asp Arg
 465 470 475 480
 Phe Ser Met Ile His Ala
 485

<210> 4880

<211> 492

<212> PRT

<213> Homo sapiens

<400> 4880

Met Ala Met Ala Leu Pro Met Pro Gly Pro Gln Glu Ala Val Val Phe
 1 5 10 15
 Glu Asp Val Ala Val Tyr Phe Thr Arg Ile Glu Trp Ser Cys Leu Ala
 20 25 30
 Pro Asp Gln Gln Ala Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Gly
 35 40 45
 Asn Leu Ala Ser Leu Gly Phe Leu Val Ala Lys Pro Ala Leu Ile Ser
 50 55 60
 Leu Leu Glu Gln Gly Glu Glu Pro Gly Ala Leu Ile Leu Gln Val Ala
 65 70 75 80
 Glu Gln Ser Val Ala Lys Ala Ser Leu Cys Thr Asp Ser Arg Met Glu
 85 90 95
 Ala Gly Ile Met Glu Ser Pro Leu Gln Arg Lys Leu Ser Arg Gln Ala
 100 105 110
 Gly Leu Pro Gly Thr Val Trp Gly Cys Leu Pro Trp Gly His Pro Val
 115 120 125
 Gly Gly His Pro Ala Pro Pro His Pro His Gly Gly Pro Glu Asp Gly
 130 135 140
 Ser Asp Lys Pro Thr His Pro Arg Ala Arg Glu His Ser Ala Ser Pro

145	150	155	160
Arg Val Leu Gln Glu Asp Leu Gly Arg Pro Val Gly Ser Ser Ala Pro			
165	170	175	
Arg Tyr Arg Cys Val Cys Gly Lys Ala Phe Arg Tyr Asn Ser Leu Leu			
180	185	190	
Leu Arg His Gln Ile Val His Thr Gly Ala Lys Pro Phe Gln Cys Thr			
195	200	205	
Glu Cys Gly Lys Ala Phe Lys Gln Ser Ser Ile Leu Leu Arg His Gln			
210	215	220	
Leu Ile His Thr Glu Glu Lys Pro Phe Gln Cys Gly Glu Cys Gly Lys			
225	230	235	240
Ala Phe Arg Gln Ser Thr Gln Leu Ala Ala His His Arg Val His Thr			
245	250	255	
Arg Glu Arg Pro Tyr Ala Cys Gly Glu Cys Gly Lys Ala Phe Ser Arg			
260	265	270	
Ser Ser Arg Leu Leu Gln His Gln Lys Phe His Thr Gly Glu Lys Pro			
275	280	285	
Phe Ala Cys Thr Glu Cys Gly Lys Ala Phe Cys Arg Arg Phe Thr Leu			
290	295	300	
Asn Glu His Gly Arg Ile His Ser Gly Glu Arg Pro Tyr Arg Cys Leu			
305	310	315	320
Arg Cys Gly Gln Arg Phe Ile Arg Gly Ser Ser Leu Leu Lys His His			
325	330	335	
Arg Leu His Ala Gln Glu Gly Ala Gln Asp Gly Gly Ala Gly Gln Gly			
340	345	350	
Ala Leu Leu Gly Ala Ala Gln Arg Pro Gln Ala Gly Asp Pro Pro His			
355	360	365	
Glu Cys Pro Val Cys Gly Arg Pro Phe Arg His Asn Ser Leu Leu Leu			
370	375	380	
Leu His Leu Arg Leu His Thr Gly Glu Lys Pro Phe Glu Cys Ala Glu			
385	390	395	400
Cys Gly Lys Ala Phe Gly Arg Lys Ser Asn Leu Thr Leu His Gln Lys			
405	410	415	
Ile His Thr Lys Glu Lys Pro Phe Ala Cys Thr Glu Cys Gly Lys Ala			
420	425	430	
Phe Arg Arg Ser Tyr Thr Leu Asn Glu His Tyr Arg Leu His Ser Gly			

435 440 445
 Glu Arg Pro Tyr Arg Cys Arg Ala Cys Gly Arg Ala Cys Ser Arg Leu
 450 455 460
 Ser Thr Leu Ile Gln His Gln Lys Val His Gly Arg Glu Pro Gly Glu
 465 470 475 480
 Asp Thr Glu Gly Arg Arg Ala Pro Cys Trp Ala Ser
 485 490

<210> 4881

<211> 232

<212> PRT

<213> Homo sapiens

<400> 4881

Met Ile Arg Lys Val Lys Val Glu Asp Glu Asp Gln Glu Ala Glu Glu
 1 5 10 15
 Glu Val Glu Trp Pro Gln His Leu Ser Leu Leu Pro Ser Pro Phe Pro
 20 25 30
 Ala Pro Asp Leu Gly His Leu Ala Ala Ala Tyr Lys Leu Glu Pro Gly
 35 40 45
 Ala Pro Gly Ala Leu Ser Gly Leu Ala Leu Ser Gly Trp Gly Pro Met
 50 55 60
 Pro Glu Lys Pro Tyr Gly Cys Gly Glu Cys Glu Arg Arg Phe Arg Asp
 65 70 75 80
 Gln Leu Thr Leu Arg Leu His Gln Arg Leu His Arg Gly Glu Gly Pro
 85 90 95
 Cys Ala Cys Pro Ser Leu Val Arg Ser Pro Arg Gly Gly Ala Ala Pro
 100 105 110
 Ala Leu Leu Leu Ser Leu Val Leu Thr Arg Thr Leu Ser Cys Pro Gln
 115 120 125
 Phe Arg Glu Ala Arg Ala Met Arg Pro Pro Gly Val Ser Lys Ala Thr
 130 135 140
 Trp Ala Ala Ala Arg Arg Phe Gly Arg Arg Gly Thr Pro Val Ser Phe
 145 150 155 160
 Pro Gln Cys Leu Arg Pro His Ser Ile Pro Ser Ser Asp Leu Leu Gly

165 170 175
 Gln Arg Leu Ser Glu Pro Leu Leu Gly Thr Ala Glu Leu Lys Phe Leu
 180 185 190
 Glu Gly Ser His Pro Gly Ala Pro Leu Glu Ser Arg Tyr Phe Pro Asp
 195 200 205
 Pro Ala Arg Pro Gln Pro Gly Gln Glu Arg Val Val Ile Tyr Val Leu
 210 215 220
 Lys Val Ser Leu Lys Leu Lys Ser
 225 230

<210> 4882

<211> 158

<212> PRT

<213> Homo sapiens

<400> 4882

Met Gly Arg Ser Pro Arg Lys Ile Asp Gln Phe Cys Asn Ser Ser Asn
 1 5 10 15
 Met Val His Gly Ser Val Thr Phe Arg Asp Val Ala Ile Asp Phe Ser
 20 25 30
 Gln Glu Glu Trp Glu Cys Leu Gln Pro Asp Gln Arg Thr Leu Tyr Arg
 35 40 45
 Asp Val Met Leu Glu Asn Tyr Ser His Leu Ile Ser Leu Gly Ser Ser
 50 55 60
 Ile Ser Lys Pro Asp Val Ile Thr Leu Leu Glu Gln Glu Lys Glu Pro
 65 70 75 80
 Trp Met Val Val Arg Lys Glu Thr Ser Arg Arg Tyr Pro Asp Leu Glu
 85 90 95
 Leu Lys Tyr Gly Pro Glu Lys Val Ser Pro Glu Asn Asp Thr Ser Glu
 100 105 110
 Val Asn Leu Pro Lys Gln Ile Ser Ser Leu Ala Ser Lys Pro Ser Phe
 115 120 125
 Thr Ala Ile His Ile Gln Arg Arg Ile His Cys Arg Ile Cys Ile Ala
 130 135 140
 Phe Gly Tyr Leu Ser Leu Val Tyr Cys Ser Leu Glu Ile Leu

145

150

155

<210> 4883

<211> 296

<212> PRT

<213> Homo sapiens

<400> 4883

Met Ala Gln Arg Val Lys Phe Pro Thr Asp Thr Leu Gln Glu Leu Leu
 1 5 10 15
 Asp Val His Ala Ala Cys Glu Arg Glu Ala Ile Ala Ile Phe Met Glu
 20 25 30
 His Ser Phe Lys Asp Glu Asn Gln Glu Phe Gln Lys Lys Phe Met Glu
 35 40 45
 Thr Thr Met Asn Lys Lys Gly Asp Phe Leu Leu Gln Asn Glu Glu Ser
 50 55 60
 Ser Val Gln Tyr Cys Gln Ala Lys Leu Asn Glu Leu Ser Lys Gly Leu
 65 70 75 80
 Met Glu Ser Ile Ser Ala Gly Ser Phe Ser Val Pro Gly Gly His Lys
 85 90 95
 Leu Tyr Met Glu Thr Lys Glu Arg Ile Glu Gln Asp Tyr Trp Gln Val
 100 105 110
 Pro Arg Lys Gly Val Lys Ala Lys Glu Val Phe Gln Arg Phe Leu Glu
 115 120 125
 Ser Gln Met Val Ile Glu Glu Ser Ile Leu Gln Ser Asp Lys Ala Leu
 130 135 140
 Thr Asp Arg Glu Lys Ala Val Ala Val Asp Arg Ala Lys Lys Glu Ala
 145 150 155 160
 Ala Glu Lys Glu Gln Glu Leu Leu Lys Gln Lys Leu Gln Glu Gln Gln
 165 170 175
 Gln Gln Met Glu Ala Gln Val Lys Ser Arg Lys Glu Asn Ile Ala Gln
 180 185 190
 Leu Lys Glu Lys Leu Gln Met Glu Arg Glu His Leu Leu Arg Glu Gln
 195 200 205
 Ile Met Met Leu Glu His Thr Gln Lys Val Gln Asn Asp Trp Leu His

210	215	220	
Glu Gly Phe Lys Lys Lys Tyr Glu Glu Met Asn Ala Glu Ile Ser Gln			
225	230	235	240
Phe Lys Arg Met Ile Asp Thr Thr Lys Asn Asp Asp Thr Pro Trp Ile			
	245	250	255
Ala Arg Thr Leu Asp Asn Leu Ala Asp Glu Leu Thr Ala Ile Leu Ser			
	260	265	270
Ala Pro Ala Lys Leu Ile Gly His Gly Val Lys Gly Val Ser Ser Leu			
	275	280	285
Phe Lys Lys His Lys Leu Pro Phe			
290	295		

<210> 4884

<211> 153

<212> PRT

<213> Homo sapiens

<400> 4884

Met Pro Arg Leu Pro Ala His Arg His Ile Pro Ser Phe Asn Pro Arg			
1	5	10	15
Gly Trp Glu Pro Asn Lys Leu Trp Gln Thr Asp Val Thr His Ile Pro			
	20	25	30
Glu Phe Gly Lys Leu Arg Tyr Val His Val Ser Ile Asp Leu Ile Ser			
	35	40	45
Ala Asn Ala Leu Pro Gly Glu Ser Thr Gly Tyr Val Thr Lys His Leu			
	50	55	60
Leu Leu Thr Phe Ala Phe Met Gly Gln Pro Thr Lys Ile Lys Thr Asn			
	65	70	75
Asn Asp Leu Ala Tyr Ala Ser Ser Gln Phe Gln Gln Phe Cys His Met			
	85	90	95
Trp Asn Ile Gln His Ser Thr Gly Ile Pro Tyr Asn Pro Gln Gly Gln			
	100	105	110
Ala Ile Val Glu Cys Ala His Ser Thr Leu Lys Asn Met Leu Lys Lys			
	115	120	125
Gln Lys Arg Gly Val Trp Val Arg Thr Leu Gln His Tyr Trp His Lys			

130 135 140
 Pro Tyr Leu Pro Leu Ile Phe Lys Ile
 145 150

<210> 4885

<211> 562

<212> PRT

<213> Homo sapiens

<400> 4885

Met Leu Asp Thr Ile Ala Arg Ala Leu Gln Asp Leu Gly Arg Gln Val
 1 5 10 15
 Leu Pro Thr Leu Pro Ser Leu Ser Gln Glu Glu Val Ser Ile Ile Trp
 20 25 30
 Gly Asn Val Ser Glu Phe Val Arg Arg Gln Leu Thr Leu His Lys Gly
 35 40 45
 Val Gln Ile Pro Ala Phe Gly Thr Phe Thr Phe Ile Arg Gln Lys Leu
 50 55 60
 Glu Val Gly Asn Asn Lys Phe Ile Leu Ile Gln Arg Pro Val Phe Ile
 65 70 75 80
 Met Val Gly Lys Leu Val Gln Ile His Gly Leu Lys Gln Asn Lys Arg
 85 90 95
 Pro Gly Thr Val Asp Ser Val Leu Ser Ser Arg Glu Ala Leu Arg Lys
 100 105 110
 Trp Pro Ser Ser Val Leu Ala Phe Pro Arg Ile Glu Leu Lys Glu Met
 115 120 125
 Glu Asn Lys Leu Pro Met Glu Thr Leu Val Glu Glu Cys Gly Glu Asn
 130 135 140
 Arg Glu Arg Lys Cys Lys Leu Lys Asp Gln Ser Asp Lys Glu Glu Gly
 145 150 155 160
 Thr Arg Asp Ile Ser Ser Pro Lys Arg Leu Arg Asp Arg Gln Ala Leu
 165 170 175
 Phe Pro Ala Lys Val Thr Asn Val Ser Leu Leu Glu Lys Phe Glu Arg
 180 185 190
 Ser Glu Ser Gly Gly Lys Ile Met Thr Pro Glu Ser Leu Ser Tyr Pro

195	200	205
Ser Cys Leu Lys His Asp Ser Glu Met Lys Pro Gln Thr Ser Pro Ala		
210	215	220
Cys Gln Asp His Asn Lys Ala Gly Gln Glu Met Cys Tyr Val Cys Leu		
225	230	235
Gln Arg Ala Gln Arg Asn Ser Leu Leu Tyr Tyr Ser Glu Glu Arg Arg		
245	250	255
Arg Glu Ile Glu Asp Glu Arg Leu Ile Gln Gln Tyr Gln Met Leu Lys		
260	265	270
Asp Gln Glu Ala Leu Phe Arg His Gln Met Lys Ser Leu Ala Thr Arg		
275	280	285
Glu Gln Asn Gln Lys Asn Ala Ala Tyr Asn Leu Gly Val Ala Glu Ala		
290	295	300
Ile Arg Asn His Lys Asn Glu Lys Pro Glu Phe Tyr Lys Ser Phe Leu		
305	310	315
Phe Asp Lys Arg Pro Leu Ser Pro Ala Leu Asn Ala Leu Lys Gln Glu		
325	330	335
Glu Tyr Ser Arg Ser Leu Leu Lys Gln Met Asp Asn Arg Gln Glu Asn		
340	345	350
Glu Ile Lys Gln Arg Gln Tyr Arg Glu Leu Met Asp Arg Leu Glu Gln		
355	360	365
Val Gln Leu Thr Glu Glu Leu Ala Ala Gln Arg Ala Lys Phe Leu Lys		
370	375	380
Asp Lys Met Glu Glu Thr Gln Cys Tyr Lys Arg Ala Leu Asp Ala Gln		
385	390	395
Ile Lys Asn Lys Pro Ser Arg Leu Pro Pro Phe Glu Pro Asp Ser Ser		
405	410	415
Glu Pro Ile Phe Gly Lys Asn Glu Gly Glu Leu Met Val Glu Lys Gln		
420	425	430
Lys Arg Glu Gln Asn Tyr Met Lys His Gln Leu Glu Ala Ala Ala Asn		
435	440	445
His Lys Arg Lys Ala Ile Leu His Gln Leu Val Asp Gln Arg Arg Asp		
450	455	460
Leu Gln Met Leu Gln Arg Thr Gln Arg Glu His Leu Ala Asp Arg Thr		
465	470	475
Ala Glu Leu Glu Arg Val Asn Arg Val Asn Gln Cys Leu Gln Glu Asp		

	485	490	495
Trp Glu Arg Ser Ala Ala Met Lys Lys Gln Arg Asp Leu Glu Asp Lys			
500	505	510	
Ala Phe Glu Arg Ala Ser Asp Lys Leu Phe Leu Leu Asp Gln Cys Glu			
515	520	525	
Lys Tyr Arg Arg Cys Lys Gln Cys Gln Arg Arg Thr Ser Asn Val Gly			
530	535	540	
Glu Ser Asn Leu Trp Pro Leu Asn Lys Phe Leu Pro Gly Ser Arg Leu			
545	550	555	560
Leu Val			

<210> 4886

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4886

Met Pro Lys Lys Leu Leu Leu Leu Pro Pro Pro Ser Ala Ser Ser Ala			
1	5	10	15
Phe Arg Val Pro Arg Ala Arg Pro Val Pro Pro Pro Ala Met Asn Ala			
20	25	30	
Ala Arg Thr Gly Tyr Arg Val Phe Ser Ala Asn Ser Thr Ala Ala Cys			
35	40	45	
Thr Glu Leu Ala Lys Arg Ile Thr Glu Arg Leu Gly Ala Glu Leu Gly			
50	55	60	
Lys Ser Val Val Tyr Gln Glu Thr Asn Gly Glu Thr Arg Val Glu Ile			
65	70	75	80
Lys Glu Ser Val Arg Gly Gln Asp Ile Phe Ile Ile Gln Thr Ile Pro			
85	90	95	
Arg Asp Val Asn Thr Ala Val Met Glu Leu Leu Ile Met Ala Tyr Ala			
100	105	110	
Leu Lys Thr Ala Cys Ala Arg Asn Ile Ile Gly Val Ile Pro Tyr Phe			
115	120	125	
Pro Tyr Ser Lys Gln Ser Lys Met Arg Lys Arg Gly Ser Ile Val Cys			

130	135	140	
Lys Leu Leu Ala Ser Met Leu Ala Lys Ala Gly Leu Thr His Ile Ile			
145	150	155	160
Thr Met Asp Leu His Gln Lys Glu Ile Gln Gly Phe Phe Ser Phe Pro			
	165	170	175
Val Asp Asn Leu Arg Ala Ser Pro Phe Leu Leu Gln Tyr Ile Gln Glu			
	180	185	190
Glu Ile Pro Asn Tyr Arg Asn Ala Val Ile Val Ala Lys Ser Pro Asp			
	195	200	205
Ala Ala Lys Arg Ala Gln Ser Tyr Ala Glu Arg Leu Arg Leu Gly Leu			
	210	215	220
Ala Val Ile His Gly Glu Ala Gln Cys Thr Glu Leu Asp Met Asp Asp			
225	230	235	240
Gly Arg His Ser Pro Pro Met Val Lys Asn Ala Thr Val His Pro Gly			
	245	250	255
Leu Glu Leu Pro Leu Met Met Ala Lys Glu Lys Pro Pro Ile Thr Val			
	260	265	270
Val Gly Asp Val Gly Gly Arg Ile Ala Ile Ile Val Asp Tyr Ile Ile			
	275	280	285
Asp Asp Val Glu Ser Phe Val Ala Ala Ala Glu Ile Leu Lys Glu Arg			
	290	295	300
Gly Ala Tyr Lys Ile Tyr Val Met Ala Thr His Gly Ile Leu Ser Ala			
305	310	315	320
Glu Ala Pro Arg Leu Ile Glu Glu Ser Ser Val Asp Glu Val Val Val			
	325	330	335
Thr Asn Thr Val Pro His Glu Val Gln Lys Leu Gln Cys Pro Lys Ile			
	340	345	350
Lys Thr Val Asp Ile Ser Leu Ile Leu Ser Glu Ala Ile Arg Arg Ile			
	355	360	365
His Asn Gly Glu Ser Met Ala Tyr Leu Phe Arg Asn Ile Thr Val Asp			
	370	375	380
Asp			
385			

<211> 621

<212> PRT

<213> Homo sapiens

<400> 4887

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Met Asp Leu Leu Thr Arg Glu Asn Val Ala Leu Lys Val Glu Ser Ala
  1              5              10             15
Gln Gln Pro Lys Gln Val Leu Lys Met Glu Val Ala Val Leu Lys Lys
      20              25             30
Leu Gln Gly Lys Asp His Val Cys Arg Phe Ile Gly Cys Gly Arg Asn
      35              40             45
Glu Lys Phe Asn Tyr Val Val Met Gln Leu Gln Gly Arg Asn Leu Ala
      50              55             60
Asp Leu Arg Arg Ser Gln Pro Arg Gly Thr Phe Thr Leu Ser Thr Thr
      65              70             75             80
Leu Arg Leu Gly Lys Gln Ile Leu Glu Ser Ile Glu Ala Ile His Ser
      85              90             95
Val Gly Phe Leu His Arg Asp Ile Lys Pro Ser Asn Phe Ala Met Gly
      100             105            110
Arg Leu Pro Ser Thr Tyr Arg Lys Cys Tyr Met Leu Asp Phe Gly Leu
      115             120            125
Ala Arg Gln Tyr Thr Asn Thr Thr Gly Asp Val Arg Pro Pro Arg Asn
      130             135            140
Val Ala Gly Phe Arg Gly Thr Val Arg Tyr Ala Ser Val Asn Ala His
      145             150            155            160
Lys Asn Arg Glu Met Gly Arg His Asp Asp Leu Trp Ser Leu Phe Tyr
      165             170            175
Met Leu Val Glu Phe Ala Val Gly Gln Leu Pro Trp Arg Lys Ile Lys
      180             185            190
Asp Lys Glu Gln Val Gly Met Ile Lys Glu Lys Tyr Glu His Arg Met
      195             200            205
Leu Leu Lys His Met Pro Ser Glu Phe His Leu Phe Leu Asp His Ile
      210             215            220
Ala Ser Leu Asp Tyr Phe Thr Lys Pro Asp Tyr Gln Leu Ile Met Ser
      225             230            235            240
Val Phe Glu Asn Ser Met Lys Glu Arg Gly Ile Ala Glu Asn Glu Ala

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	245	250	255
Phe Asp Trp Glu Lys Ala Gly Thr Asp Ala Leu Leu Ser Thr Ser Thr			
	260	265	270
Ser Thr Pro Pro Gln Gln Asn Thr Arg Gln Thr Ala Ala Met Phe Gly			
	275	280	285
Val Val Asn Val Thr Pro Val Pro Gly Asp Leu Leu Arg Glu Asn Thr			
	290	295	300
Glu Asp Val Leu Gln Gly Glu His Leu Ser Asp Gln Glu Asn Ala Pro			
305	310	315	320
Pro Ile Leu Pro Gly Arg Pro Ser Glu Gly Leu Gly Pro Ser Pro His			
	325	330	335
Leu Val Pro His Pro Gly Gly Pro Glu Ala Glu Val Trp Glu Gly Thr			
	340	345	350
Asp Val Asn Arg Asn Lys Leu Arg Ile Asn Ile Gly Lys Ser Pro Cys			
	355	360	365
Val Glu Glu Glu Gln Ser Arg Gly Met Gly Val Pro Ser Ser Pro Val			
	370	375	380
Arg Ala Pro Pro Asp Ser Pro Thr Thr Pro Val Arg Ser Leu Arg Tyr			
385	390	395	400
Arg Arg Val Asn Ser Pro Glu Ser Glu Arg Leu Ser Thr Ala Asp Gly			
	405	410	415
Arg Val Glu Leu Pro Glu Arg Arg Ser Arg Met Asp Leu Pro Gly Ser			
	420	425	430
Pro Ser Arg Gln Ala Cys Ser Ser Gln Pro Ala Gln Met Leu Ser Val			
	435	440	445
Asp Thr Gly His Ala Asp Arg Gln Ala Ser Gly Arg Met Asp Val Ser			
	450	455	460
Ala Ser Val Glu Gln Glu Ala Leu Ser Asn Ala Phe Arg Ser Val Pro			
465	470	475	480
Leu Ala Glu Glu Glu Asp Phe Asp Ser Lys Glu Trp Val Ile Ile Asp			
	485	490	495
Lys Glu Thr Glu Leu Lys Asp Phe Pro Pro Gly Ala Glu Pro Ser Thr			
	500	505	510
Ser Gly Thr Thr Asp Glu Glu Pro Glu Glu Leu Arg Pro Leu Pro Glu			
	515	520	525

Glu Gly Glu Glu Arg Arg Arg Leu Gly Ala Glu Pro Phe Pro Leu Thr
 530 535 540
 Pro Ala Leu Gly Thr Pro Pro Ser Thr Glu Arg Val Gly Pro His Arg
 545 550 555 560
 Pro Thr Glu Thr Val Gly Gly Gly Gln Thr Leu Gly Ala Leu Pro Pro
 565 570 575
 Ala Val Gln Pro Pro Ala Thr Thr Gly Val Leu Arg Val Leu Leu Leu
 580 585 590
 His Ala Gly Asp Gly Ala Leu Pro Ser Pro Arg Arg Arg Arg Leu Leu
 595 600 605
 Gly Leu Leu Arg Phe Pro His Ser Ala Gln Pro Leu Gly
 610 615 620

<210> 4888

<211> 267

<212> PRT

<213> Homo sapiens

<400> 4888

Met Phe Arg Arg Lys Ala Glu Gly Leu Asp Leu Ala Ser Cys Val Arg
 1 5 10 15
 Ser Leu Asp Val Leu Val Leu Asp Glu Ala Asp Arg Leu Leu Asp Met
 20 25 30
 Gly Phe Glu Ala Ser Ile Asn Thr Ile Leu Glu Phe Leu Pro Lys Gln
 35 40 45
 Arg Arg Thr Gly Leu Phe Ser Ala Thr Gln Thr Gln Glu Val Glu Asn
 50 55 60
 Leu Val Arg Ala Gly Leu Arg Asn Pro Val Arg Val Ser Val Lys Glu
 65 70 75 80
 Lys Gly Val Ala Ala Ser Ser Ala Gln Lys Thr Pro Ser Arg Leu Glu
 85 90 95
 Asn Tyr Tyr Met Val Cys Lys Ala Asp Glu Lys Phe Asn Gln Leu Val
 100 105 110
 His Phe Leu Arg Asn His Lys Gln Glu Lys His Leu Val Phe Phe Ser
 115 120 125

Thr Cys Ala Cys Val Glu Tyr Tyr Gly Lys Ala Leu Glu Val Leu Val
 130 135 140
 Lys Gly Val Lys Ile Met Cys Ile His Gly Lys Met Lys Tyr Lys Arg
 145 150 155 160
 Asn Lys Ile Phe Met Glu Phe Arg Lys Leu Gln Ser Gly Ile Leu Val
 165 170 175
 Cys Thr Asp Val Met Ala Arg Gly Ile Asp Ile Pro Glu Val Asn Trp
 180 185 190
 Val Leu Gln Tyr Asp Pro Pro Ser Asn Ala Ser Ala Phe Val His Arg
 195 200 205
 Cys Gly Arg Thr Ala Arg Ile Gly His Gly Gly Ser Ala Leu Val Phe
 210 215 220
 Leu Leu Pro Met Glu Glu Ser Tyr Ile Asn Phe Leu Ala Ile Ser Gln
 225 230 235 240
 Lys Val Ser Cys Arg Pro Phe Ser Asp Arg Met Pro Ser Asp Gly Val
 245 250 255
 Ala Gly Lys Val Leu Gln His Val Val Ser Asn
 260 265

<210> 4889

<211> 700

<212> PRT

<213> Homo sapiens

<400> 4889

Met Leu Ser Asp Asp His Val Asn Glu Ile Ile Ile Gln Lys Leu Ile
 1 5 10 15
 Ala Ser Leu Ile Pro Met Thr Ser Arg Asp Arg Ile Lys Ala Ile Arg
 20 25 30
 Asn Gln Pro Arg Thr Met Glu Glu Lys Arg Asn Leu Ser Arg Gly Gly
 35 40 45
 Leu Thr Ile Thr Thr Glu Asp Glu Gly Arg Ala Lys Ala His Leu Thr
 50 55 60
 Trp Trp Lys Ile Val Asp Lys Glu Lys Ser Lys Gln Thr His Arg Ile
 65 70 75 80

Met Pro Arg His Glu Val Tyr Val Leu Leu Ile Arg Asn Ile Phe Leu			
370	375	380	
Lys Ile Ser Ile Ile Gly Ile Leu Cys Tyr Tyr Trp Leu Asn Thr Val			
385	390	395	400
Ala Leu Ser Gly Glu Glu Cys Trp Gly Thr Leu Ile Gly Gln Asp Ile			
405	410	415	
Tyr Arg Leu Leu Leu Met Asp Phe Val Phe Ser Leu Val Asn Ser Phe			
420	425	430	
Leu Gly Glu Phe Leu Arg Arg Ile Ile Gly Met Gln Leu Ile Thr Ser			
435	440	445	
Leu Gly Leu Gln Glu Phe Asp Ile Ala Arg Asn Val Leu Glu Leu Ile			
450	455	460	
Tyr Ala Gln Thr Leu Val Trp Ile Gly Ile Phe Phe Arg Pro Leu Leu			
465	470	475	480
Pro Phe Ile Gln Met Ile Met Leu Phe Ile Met Phe Tyr Ser Lys Asn			
485	490	495	
Ile Ser Leu Met Met Asn Phe Gln Pro Pro Ser Lys Ala Trp Arg Ala			
500	505	510	
Ser Gln Met Met Thr Phe Phe Ile Phe Leu Leu Phe Phe Pro Ser Phe			
515	520	525	
Thr Gly Val Leu Cys Thr Leu Ala Ile Thr Ile Trp Arg Leu Lys Pro			
530	535	540	
Ser Ala Asp Cys Gly Pro Phe Arg Gly Leu Pro Leu Phe Ile His Ser			
545	550	555	560
Ile Tyr Ser Trp Ile Asp Thr Leu Ser Thr Arg Pro Gly Tyr Leu Trp			
565	570	575	
Val Val Trp Ile Tyr Arg Asn Leu Ile Gly Ser Val His Phe Phe Phe			
580	585	590	
Ile Leu Thr Leu Ile Val Leu Ile Ile Thr Tyr Leu Tyr Trp Gln Ile			
595	600	605	
Thr Glu Gly Arg Lys Ile Met Ile Arg Leu Leu His Glu Gln Ile Ile			
610	615	620	
Asn Glu Gly Lys Asp Lys Met Phe Leu Ile Glu Lys Leu Ile Lys Leu			
625	630	635	640
Gln Asp Met Glu Lys Lys Ala Asn Pro Ser Ser Leu Val Leu Glu Arg			
645	650	655	

Arg Glu Val Glu Gln Gln Gly Phe Cys Ile Trp Gly Asn Met Met Ala
 660 665 670
 Val Leu Thr Cys Asp Leu Glu Asp Gln Phe Lys Lys Ala Ile Gln Gly
 675 680 685
 Pro Asp Asp Ser Phe Gly Asn Gln Thr Pro Ile Lys
 690 695 700

<210> 4890

<211> 174

<212> PRT

<213> Homo sapiens

<400> 4890

Met Ile Ser Asn Leu Ser Trp Glu Leu Pro Gly Ser Leu Pro Leu Ile
 1 5 10 15
 Ser Val Pro Tyr Ser Met His Cys Cys Thr Leu Gly Phe Leu Ser Cys
 20 25 30
 Ser Leu Phe Leu His Met Ser Phe Glu Leu Lys Leu Leu Leu Leu
 35 40 45
 Leu Trp Leu Ala Ala Ser Cys Ser Leu Phe Leu His Ser His Ala Trp
 50 55 60
 Leu Ser Glu Cys Leu Ile Val Arg Leu Tyr Leu Gly Pro Leu Asp Ser
 65 70 75 80
 Arg Pro Gly Val Leu Lys Glu Pro Lys Leu Met Gly Ala Ile Ser Phe
 85 90 95
 Phe Ile Phe Phe Phe Thr Leu Leu Val Leu Ala Arg Gln Asn Glu Tyr
 100 105 110
 Tyr Cys Arg Leu Asp Phe Leu Trp Lys Lys Lys Leu Arg Gln Glu Arg
 115 120 125
 Glu Glu Thr Glu Thr Met Glu Asn Leu Thr Arg Leu Leu Leu Glu Asn
 130 135 140
 Val Leu Pro Ala His Val Ala Pro Gln Phe Ile Gly Gln Asn Arg Arg
 145 150 155 160
 Asn Glu Ser Pro Val Pro Pro Gly Ser Leu Pro Pro Val Leu
 165 170

<210> 4891

<211> 546

<212> PRT

<213> Homo sapiens

<400> 4891

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Met Ile His Thr Thr Glu Lys Pro Tyr Arg Cys Asn Glu Ser Gly Lys
  1             5             10             15
Ala Phe His Arg Gly Ser Leu Leu Thr Val His Gln Ile Val His Thr
      20             25             30
Arg Gly Lys Pro Tyr Gln Cys Asp Val Cys Gly Arg Ile Phe Arg Gln
      35             40             45
Asn Ser Asp Leu Val Asn His Arg Arg Ser His Thr Gly Asp Lys Pro
      50             55             60
Tyr Ile Cys Asn Glu Cys Gly Lys Ser Phe Ser Lys Ser Ser His Leu
      65             70             75             80
Ala Val His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn
      85             90             95
Arg Cys Gly Lys Cys Phe Ser Gln Ser Ser Ser Leu Ala Thr His Gln
      100            105            110
Thr Val His Thr Gly Asp Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys
      115            120            125
Thr Phe Lys Arg Asn Ser Ser Leu Thr Ala His His Ile Ile His Ala
      130            135            140
Gly Lys Lys Pro Tyr Thr Cys Asp Val Cys Gly Lys Val Phe Tyr Gln
      145            150            155            160
Asn Ser Gln Leu Val Arg His Gln Ile Ile His Thr Gly Glu Thr Pro
      165            170            175
Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Phe Gln Arg Ser Arg Leu
      180            185            190
Ala Gly His Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn
      195            200            205
Glu Cys Gly Lys Val Phe Ser Gln His Ser His Leu Ala Val His Gln
      210            215            220

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Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys
 225 230 235 240
 Ala Phe Asn Trp Gly Ser Leu Leu Thr Val His Gln Arg Ile His Thr
 245 250 255
 Gly Glu Lys Pro Tyr Lys Cys Asn Val Cys Gly Lys Val Phe Asn Tyr
 260 265 270
 Gly Gly Tyr Leu Ser Val His Met Arg Cys His Thr Gly Glu Lys Pro
 275 280 285
 Leu His Cys Asn Lys Cys Gly Met Val Phe Thr Tyr Tyr Ser Cys Leu
 290 295 300
 Ala Arg His Gln Arg Met His Thr Gly Glu Lys Pro Tyr Lys Cys Asn
 305 310 315 320
 Val Cys Gly Lys Val Phe Ile Asp Ser Gly Asn Leu Ser Ile His Arg
 325 330 335
 Arg Ser His Thr Gly Glu Lys Pro Phe Gln Cys Asn Glu Cys Gly Lys
 340 345 350
 Val Phe Ser Tyr Tyr Ser Cys Leu Ala Arg His Arg Lys Ile His Thr
 355 360 365
 Gly Glu Lys Pro Tyr Lys Cys Asn Asp Cys Gly Lys Ala Tyr Thr Gln
 370 375 380
 Arg Ser Ser Leu Thr Lys His Leu Val Ile His Thr Gly Glu Asn Pro
 385 390 395 400
 Tyr His Cys Asn Glu Phe Gly Glu Ala Phe Ile Gln Ser Ser Lys Leu
 405 410 415
 Ala Arg Tyr His Arg Asn Pro Thr Gly Glu Lys Pro His Lys Cys Ser
 420 425 430
 Glu Cys Gly Arg Thr Phe Ser His Lys Thr Ser Leu Val Tyr His Gln
 435 440 445
 Arg Arg His Thr Gly Glu Met Pro Tyr Lys Cys Ile Glu Cys Gly Lys
 450 455 460
 Val Phe Asn Ser Thr Thr Thr Leu Ala Arg His Arg Arg Ile His Thr
 465 470 475 480
 Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Arg Tyr
 485 490 495
 Arg Ser Gly Leu Ala Arg His Trp Ser Ile His Thr Gly Glu Lys Pro
 500 505 510

Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Arg Val Arg Ser Ile Leu
 515 520 525
 Leu Asn His Gln Met Met His Thr Gly Glu Lys Pro Tyr Lys Cys Asn
 530 535 540
 Glu Cys
 545

<210> 4892

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4892

Met Met His Leu Gln Pro Ala Trp Ser Ser Phe Gly Gln Ser Gly Pro
 1 5 10 15
 Ile Leu Met Arg Ser Gly Gly Met Gln Leu Leu Leu Leu Pro His Gly
 20 25 30
 Ser Val Arg Pro Asn Gln Pro Ala Leu Ser Pro Leu Pro Ala Val Tyr
 35 40 45
 Gln Val Ala Leu Glu Arg Gly His Pro Glu Gly Thr Thr Cys Ala Ala
 50 55 60
 Val Gly Gly Gly Lys Ile Asn Arg Pro Arg Thr Pro Gly Gln Ala Gly
 65 70 75 80
 Ala Thr Glu Glu Val Ser Ser Lys Gly Gly Lys Leu Ser Gly Leu Phe
 85 90 95
 Leu Thr Ile Leu Pro Val Pro Arg Pro Trp Thr Ala Gly Gln Pro Gln
 100 105 110
 Ser

<210> 4893

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4893

Met Met Thr Asp Leu Lys Gln Ser His Ser Val Arg Leu Asn Asp Gly
 1 5 10 15
 Pro Phe Met Pro Val Leu Gly Phe Gly Thr Tyr Ala Pro Asp His Thr
 20 25 30
 Pro Lys Ser Gln Ala Ala Glu Ala Thr Lys Val Ala Ile Asp Val Gly
 35 40 45
 Phe Arg His Ile Asp Ser Ala Tyr Leu Tyr Gln Asn Glu Glu Glu Val
 50 55 60
 Gly Gln Ala Ile Trp Glu Lys Ile Ala Asp Gly Thr Val Lys Arg Glu
 65 70 75 80
 Glu Ile Phe Tyr Thr Ile Lys Leu Trp Ala Thr Phe Phe Arg Ala Glu
 85 90 95
 Leu Val His Pro Ala Leu Glu Arg Ser Leu Lys Lys Leu Gly Pro Asp
 100 105 110
 Tyr Val Asp Leu Phe Ile Ile His Val Pro Phe Ala Met Lys Gly Ser
 115 120 125
 Ser

<210> 4894

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4894

Met Cys Pro Val Cys Gly Arg Ala Leu Ser Ser Pro Gly Ser Leu Gly
 1 5 10 15
 Arg His Leu Leu Ile His Ser Glu Asp Gln Arg Ser Asn Cys Ala Val
 20 25 30
 Cys Gly Ala Arg Phe Thr Ser His Ala Thr Phe Asn Arg Ser Ala Gly
 35 40 45
 His Leu Ser Leu Leu Cys Trp Glu Gln Ile Thr Gly Cys Glu Phe Cys
 50 55 60

Phe Leu Lys Ser Lys Arg Arg Leu Glu Ile Gly Asn Ala Lys Ala Ala
 65 70 75 80
 Asp Ala Cys Ser Leu Glu Val Gln Val Arg Arg Leu Gly Asn Met Pro
 85 90 95
 Ile Pro Ser His Ser Pro Lys Gly Lys
 100 105

<210> 4895

<211> 646

<212> PRT

<213> Homo sapiens

<400> 4895

Met Phe Leu Ser Ile Ser Thr Arg Leu Pro Ser Gln Tyr Ile Tyr Gly
 1 5 10 15
 Phe Gly Glu Thr Glu His Thr Thr Phe Arg Arg Asn Met Asn Trp Asn
 20 25 30
 Thr Trp Gly Met Phe Ala His Asp Glu Pro Pro Ala Tyr Lys Lys Asn
 35 40 45
 Ser Tyr Gly Val His Pro Tyr Tyr Met Ala Leu Glu Glu Asp Gly Ser
 50 55 60
 Ala His Gly Val Leu Leu Leu Asn Ser Asn Ala Met Asp Val Thr Leu
 65 70 75 80
 Gln Pro Thr Pro Ala Leu Thr Tyr Arg Thr Thr Gly Gly Ile Leu Asp
 85 90 95
 Phe Tyr Ile Val Leu Gly Pro Thr Pro Glu Leu Val Thr Gln Gln Tyr
 100 105 110
 Thr Glu Leu Ile Gly Arg Pro Ala Met Ile Pro Tyr Trp Ala Leu Gly
 115 120 125
 Phe His Leu Ser Arg Tyr Gly Tyr Gln Asn Asp Ala Glu Ile Ser Ser
 130 135 140
 Leu Tyr Asp Ala Met Val Ala Ala Gln Ile Pro Tyr Asp Val Gln His
 145 150 155 160
 Val Asp Ile Asp Tyr Met Asn Arg Lys Leu Asp Phe Thr Leu Ser Ala
 165 170 175

Asn Phe Gln Asn Leu Ser Leu Leu Ile Glu Gln Met Lys Lys Asn Gly
 180 185 190
 Met Arg Phe Ile Leu Ile Leu Asp Pro Ala Ile Ser Gly Asn Glu Thr
 195 200 205
 Gln Tyr Leu Pro Phe Ile Arg Gly Gln Glu Asn Asn Val Phe Ile Lys
 210 215 220
 Trp Pro Asp Thr Asn Asp Ile Val Trp Gly Lys Val Trp Pro Asp Leu
 225 230 235 240
 Pro Asn Val Ile Val Asp Gly Ser Leu Asp His Glu Thr Gln Val Lys
 245 250 255
 Leu Tyr Arg Ala Tyr Val Ala Phe Pro Asp Phe Phe Arg Asn Ser Thr
 260 265 270
 Ala Ala Trp Trp Lys Lys Glu Ile Glu Glu Leu Tyr Ala Asn Pro Arg
 275 280 285
 Glu Pro Glu Lys Ser Leu Lys Phe Asp Gly Leu Trp Ile Asp Met Asn
 290 295 300
 Glu Pro Ser Asn Phe Val Asp Gly Ser Val Arg Gly Cys Ser Asn Glu
 305 310 315 320
 Met Leu Asn Asn Pro Pro Tyr Met Pro Tyr Leu Glu Ser Arg Asp Lys
 325 330 335
 Gly Leu Ser Ser Lys Thr Leu Cys Met Glu Ser Gln Gln Ile Leu Pro
 340 345 350
 Asp Ser Ser Pro Val Glu His Tyr Asn Val His Asn Leu Tyr Gly Trp
 355 360 365
 Ser Gln Thr Arg Pro Thr Tyr Glu Ala Val Gln Glu Val Thr Gly Gln
 370 375 380
 Arg Gly Val Ile Ile Thr Arg Ser Thr Phe Pro Ser Ser Gly Arg Trp
 385 390 395 400
 Gly Gly His Arg Leu Gly Asn Asn Thr Ala Ala Trp Asp Gln Leu Gly
 405 410 415
 Lys Ser Ile Ile Gly Met Met Glu Phe Ser Leu Phe Gly Ile Pro Tyr
 420 425 430
 Thr Gly Ala Asp Ile Cys Gly Phe Phe Gly Asp Ala Glu Tyr Glu Met
 435 440 445
 Cys Val Arg Trp Met Gln Leu Gly Ala Phe Tyr Pro Phe Ser Arg Asn
 450 455 460

His Asn Asn Ile Gly Thr Arg Arg Gln Asp Pro Val Ala Trp Asn Ser
 465 470 475 480
 Thr Phe Glu Met Leu Ser Arg Lys Val Leu Glu Thr Arg Tyr Thr Leu
 485 490 495
 Leu Pro Tyr Leu Tyr Thr Leu Met His Lys Ala His Val Glu Gly Ser
 500 505 510
 Thr Val Val Arg Pro Leu Leu His Glu Phe Thr Asp Asp Arg Thr Thr
 515 520 525
 Trp Asp Ile Asp Arg Gln Phe Met Leu Gly Pro Ala Ile Leu Ile Ser
 530 535 540
 Pro Val Leu Glu Thr Ser Thr Phe Glu Ile Ser Ala Tyr Phe Pro Arg
 545 550 555 560
 Ala Arg Trp Tyr Asp Tyr Ser Thr Gly Thr Ser Ser Thr Ser Thr Gly
 565 570 575
 Gln Arg Lys Ile Leu Lys Ala Pro Leu Asp His Ile Asn Leu His Val
 580 585 590
 Arg Gly Gly Tyr Ile Leu Pro Trp Gln Glu Pro Ala Met Asn Thr His
 595 600 605
 Ser Ser Arg Gln Asn Phe Met Gly Leu Ile Val Ala Leu Asp Asp Asn
 610 615 620
 Gly Thr Ala Glu Gly Gln Val Phe Trp Asp Asp Gly Gln Ser Ile Val
 625 630 635 640
 Phe Asn Thr Thr Ala Met
 645

<210> 4896

<211> 472

<212> PRT

<213> Homo sapiens

<400> 4896

Met Ala Ser Pro Pro Arg Cys Ser Pro Thr Ala His Asp Arg Glu Cys
 1 5 10 15
 Lys Leu Pro Pro Pro Ser Ala Pro Ala Ser Glu Tyr Cys Pro Gly Lys
 20 25 30

Leu Ser Trp Gly Thr Met Ala Arg Ala Leu Gly Arg Phe Lys Leu Ser
 35 40 45
 Ile Pro His Thr His Leu Leu Ala Thr Leu Asp Pro Leu Ala Leu Asp
 50 55 60
 Arg Glu Pro Pro Pro His Leu Leu Pro Glu Lys His Gln Val Pro Glu
 65 70 75 80
 Lys Leu Ile Trp Gly Asp Gln Asp Pro Leu Ser Lys Ile Pro Phe Lys
 85 90 95
 Ile Leu Ser Gly His Glu His Ala Val Ser Thr Cys His Phe Cys Val
 100 105 110
 Asp Asp Thr Lys Leu Leu Ser Gly Ser Tyr Asp Cys Thr Val Lys Leu
 115 120 125
 Trp Asp Pro Val Asp Gly Ser Val Val Arg Asp Phe Glu His Arg Pro
 130 135 140
 Lys Ala Pro Val Val Glu Cys Ser Ile Thr Gly Asp Ser Ser Arg Val
 145 150 155 160
 Ile Ala Ala Ser Tyr Asp Lys Thr Val Arg Ala Trp Asp Leu Glu Thr
 165 170 175
 Gly Lys Leu Leu Trp Lys Val Arg Tyr Asp Thr Phe Ile Val Ser Cys
 180 185 190
 Lys Phe Ser Pro Asp Gly Lys Tyr Val Val Ser Gly Phe Asp Val Asp
 195 200 205
 His Gly Ile Cys Ile Met Asp Ala Glu Asn Ile Thr Thr Val Ser Val
 210 215 220
 Ile Lys Asp His His Thr Arg Ser Ile Thr Ser Cys Cys Phe Asp Pro
 225 230 235 240
 Asp Ser Gln Arg Val Ala Ser Val Ser Leu Asp Arg Cys Ile Lys Ile
 245 250 255
 Trp Asp Val Thr Ser Gln Ala Thr Leu Leu Thr Ile Thr Lys Ala His
 260 265 270
 Ser Asn Ala Ile Ser Asn Cys Cys Phe Thr Phe Ser Gly His Phe Leu
 275 280 285
 Cys Thr Ser Ser Trp Asp Lys Asn Leu Lys Ile Trp Asn Val His Thr
 290 295 300
 Gly Glu Phe Arg Asn Arg Gly Ala Cys Val Thr Leu Met Gln Gly His
 305 310 315 320

<211> 466

<212> PRT

<213> Homo sapiens

<400> 4897

Met	Phe	Val	Gly	Val	Ala	Arg	His	Ser	Gly	Ser	Gln	Asp	Glu	Val	Ser
1					5				10					15	
Arg	Gly	Val	Glu	Pro	Leu	Asp	Ala	Ala	Arg	Ala	Gln	Pro	Ala	Lys	Asp
				20				25					30		
Arg	Arg	Ala	Lys	Gly	Thr	Pro	Lys	Ser	Ser	Lys	Pro	Gly	Lys	Lys	His
			35				40					45			
Arg	Tyr	Leu	Arg	Leu	Leu	Pro	Glu	Ala	Leu	Ile	Arg	Phe	Gly	Gly	Phe
	50					55					60				

Arg	Lys	Arg	Lys	Lys	Ala	Lys	Ser	Ser	Val	Ser	Lys	Lys	Pro	Gly	Glu
65					70					75					80
Val	Asp	Asp	Ser	Leu	Glu	Gln	Pro	Cys	Gly	Leu	Gly	Cys	Leu	Val	Ser
				85						90					95
Thr	Cys	Cys	Glu	Cys	Cys	Asn	Asn	Ile	Arg	Cys	Phe	Met	Ile	Phe	Tyr
				100						105					110
Cys	Ile	Leu	Leu	Ile	Cys	Gln	Gly	Val	Val	Phe	Gly	Leu	Ile	Asp	Val
				115						120					125
Ser	Ile	Gly	Asp	Phe	Gln	Lys	Glu	Tyr	Gln	Leu	Lys	Thr	Ile	Glu	Lys
				130						135					140
Leu	Ala	Leu	Glu	Lys	Ser	Tyr	Asp	Ile	Ser	Ser	Gly	Leu	Val	Ala	Ile
145					150						155				160
Phe	Ile	Ala	Phe	Tyr	Gly	Asp	Arg	Lys	Lys	Val	Ile	Trp	Phe	Val	Ala
					165						170				175
Ser	Ser	Phe	Leu	Ile	Gly	Leu	Gly	Ser	Leu	Leu	Cys	Ala	Phe	Pro	Ser
					180						185				190
Ile	Asn	Glu	Glu	Asn	Lys	Gln	Ser	Lys	Val	Gly	Ile	Glu	Gly	Ile	Ala
				195							200				205
Glu	Cys	Thr	Ser	Met	Ile	Gly	Tyr	Ala	Leu	Gly	Tyr	Val	Leu	Gly	Ala
				210							215				220
Pro	Leu	Val	Lys	Val	Pro	Glu	Asn	Thr	Thr	Ser	Ala	Thr	Lys	Thr	Gly
225						230					235				240
Lys	Leu	Gly	Asn	Leu	Thr	Ala	Pro	Cys	Asn	Glu	Lys	Cys	Arg	Cys	Ser
						245					250				255
Ser	Ser	Ile	Tyr	Ser	Ser	Ile	Cys	Gly	Arg	Asp	Asp	Ile	Glu	Tyr	Phe
						260					265				270
Ser	Pro	Cys	Phe	Ala	Gly	Cys	Thr	Tyr	Ser	Lys	Ala	Gln	Asn	Gln	Lys
						275					280				285
Lys	Met	Tyr	Tyr	Asn	Cys	Ser	Cys	Ile	Lys	Glu	Gly	Leu	Ile	Thr	Ala
						290									300
Asp	Ala	Glu	Gly	Asp	Phe	Ile	Asp	Ala	Arg	Pro	Gly	Lys	Cys	Asp	Ala
305						310									320
Lys	Cys	Tyr	Lys	Leu	Pro	Leu	Phe	Ile	Ala	Phe	Ile	Phe	Ser	Thr	Leu
						325					330				335
Ile	Phe	Ser	Gly	Phe	Ser	Gly	Val	Pro	Ile	Val	Leu	Ala	Met	Thr	Arg

340 345 350
 Val Val Pro Asp Lys Leu Arg Ser Leu Ala Leu Gly Val Ser Tyr Val
 355 360 365
 Ile Leu Arg Ile Phe Gly Thr Ile Pro Gly Pro Ser Ile Phe Lys Met
 370 375 380
 Ser Gly Glu Thr Ser Cys Ile Leu Arg Asp Val Asn Lys Cys Gly His
 385 390 395 400
 Arg Gly Arg Cys Trp Ile Tyr Asn Lys Thr Lys Met Ala Phe Leu Leu
 405 410 415
 Val Gly Ile Cys Phe Leu Cys Lys Leu Cys Thr Ile Ile Phe Thr Thr
 420 425 430
 Ile Ala Phe Phe Ile Tyr Lys Arg Arg Leu Asn Glu Asn Thr Asp Phe
 435 440 445
 Pro Asp Val Thr Val Lys Asn Pro Lys Val Lys Lys Lys Glu Glu Thr
 450 455 460
 Asp Leu
 465

<210> 4898

<211> 679

<212> PRT

<213> Homo sapiens

<400> 4898

Met Met His Tyr Leu Lys Asn Ile Met Ile Ala Val Val Glu Ser Met
 1 5 10 15
 Ile Asn Lys Phe Glu Glu Asp Glu Thr Arg Asn Gln Glu Arg Gln Lys
 20 25 30
 Lys Ile Gln Lys Glu Lys Ser His Ser Tyr Arg Thr Asp Asn Cys Ser
 35 40 45
 Asp Ser Asp Ser Ser Leu Asn Gln Ser Tyr Lys Phe Cys Gln Gly Lys
 50 55 60
 Leu Gln Leu Ile Leu Asp Gln Leu Asp Pro Gly Gln Pro Lys Glu Val
 65 70 75 80
 Arg Tyr Glu Ala Leu Gln Thr Leu Cys Ser Ala Pro Pro Ser Asp Val

	85		90		95
Leu Asn Cys Glu Asn Trp Thr Thr		Leu Cys Glu Lys Leu Thr Val Ser			
100		105		110	
Leu Ser Asp Pro Asp Pro Val Phe		Ser Asp Arg Ile Leu Lys Phe Cys			
115		120		125	
Ala Gln Thr Phe Leu Leu Ser Pro Leu His Met Thr Lys Glu Ile Tyr					
130		135		140	
Thr Ser Leu Ala Lys Tyr Leu Glu Ser Tyr Phe Leu Ser Arg Glu Asn					
145		150		155	160
His Ile Pro Thr Leu Ser Ala Gly Val Asp Ile Thr Asn Pro Asn Met					
165		170		175	
Thr Arg Leu Leu Lys Lys Val Arg Leu Leu Asn Glu Tyr Gln Lys Glu					
180		185		190	
Ala Pro Ser Phe Trp Ile Arg His Pro Glu Lys Tyr Met Glu Glu Ile					
195		200		205	
Val Glu Ser Thr Leu Ser Leu Leu Thr Val Lys His Asn Gln Ser His					
210		215		220	
Val Val Ser Gln Lys Ile Leu Asp Pro Ile Tyr Phe Phe Ala Leu Val					
225		230		235	240
Asp Thr Lys Ala Val Trp Phe Lys Lys Trp Met His Ala His Tyr Ser					
245		250		255	
Arg Thr Thr Val Leu Arg Leu Leu Glu Lys Lys Tyr Lys Ser Leu Val					
260		265		270	
Thr Thr Ala Ile Gln Gln Cys Val Gln Tyr Phe Glu Met Cys Lys Thr					
275		280		285	
Arg Lys Ala Asp Glu Thr Leu Gly His Ser Lys His Cys Arg Asn Lys					
290		295		300	
Gln Lys Thr Phe Tyr Tyr Leu Gly Gln Glu Leu Gln Tyr Ile Tyr Phe					
305		310		315	320
Ile His Ser Leu Cys Leu Leu Gly Arg Leu Leu Ile Tyr Lys Gln Gly					
325		330		335	
Arg Lys Leu Phe Pro Ile Lys Leu Lys Asn Lys Lys Gly Leu Val Ser					
340		345		350	
Leu Ile Asp Leu Leu Val Leu Phe Thr Gln Leu Ile Tyr Tyr Ser Pro					
355		360		365	

Ser Cys Pro Lys Met Thr Ser Ala Ala His Ser Glu Asn Tyr Ser Pro
 370 375 380
 Ala Ser Met Val Thr Glu Val Leu Trp Ile Leu Ser Asp Gln Lys Glu
 385 390 395 400
 Cys Ala Val Glu Cys Leu Tyr Asn Asn Ile Val Ile Glu Thr Leu Leu
 405 410 415
 Gln Pro Ile His Asn Leu Met Lys Gly Asn Glu Ala Ser Pro Asn Cys
 420 425 430
 Ser Glu Thr Ala Leu Ile His Ile Ala Gly Ile Leu Ala Arg Ile Ala
 435 440 445
 Ser Val Glu Glu Gly Leu Ile Leu Leu Leu Tyr Gly Ala Asn Met Asn
 450 455 460
 Ser Ser Glu Glu Ser Pro Thr Gly Ala His Ile Ile Ala Gln Phe Ser
 465 470 475 480
 Lys Lys Leu Leu Asp Glu Asp Ile Ser Ile Phe Ser Gly Ser Glu Met
 485 490 495
 Leu Pro Val Val Lys Gly Ala Phe Ile Ser Val Cys Arg His Ile Tyr
 500 505 510
 Ser Thr Cys Glu Gly Leu Gln Val Leu Ile Thr Tyr Asn Leu His Glu
 515 520 525
 Ser Ile Ala Lys Ala Trp Lys Lys Thr Ser Leu Leu Ser Glu Arg Ile
 530 535 540
 Pro Thr Pro Val Glu Gly Ser Asp Ser Val Ser Ser Val Ser Gln Glu
 545 550 555 560
 Ser Gln Asn Ile Met Ala Trp Glu Asp Asn Leu Leu Asp Asp Leu Leu
 565 570 575
 His Phe Ala Ala Thr Pro Lys Gly Leu Leu Leu Leu Gln Arg Thr Gly
 580 585 590
 Ala Ile Asn Glu Cys Val Thr Phe Ile Phe Asn Arg Tyr Ala Lys Lys
 595 600 605
 Leu Gln Val Ser Arg His Lys Lys Phe Gly Tyr Gly Val Leu Val Thr
 610 615 620
 Arg Val Ala Ser Thr Ala Ala Gly Gly Ile Ala Leu Lys Lys Ser Gly
 625 630 635 640
 Phe Ile Asn Glu Leu Ile Thr Glu Leu Trp Ser Asn Leu Glu Tyr Gly
 645 650 655

Arg Asp Asp Val Arg Val Thr His Pro Arg Thr Thr Pro Val Asp Pro
 660 665 670

Ile Asp Arg Ser Cys Gln Lys
 675

<210> 4899

<211> 1148

<212> PRT

<213> Homo sapiens

<400> 4899

Met Val Leu Asn Leu Tyr Gln Leu Asn Gln Leu Asp Cys Pro Gly Gly
 1 5 10 15
 Arg Leu Ile Gly Gly Trp Glu Asp Asn Pro Phe Lys Gly Asp Leu Lys
 20 25 30
 Ile Val Leu Arg Gly Asn His Thr Thr Gln Asp Trp Ala Leu Pro Glu
 35 40 45
 Gly Pro Asn Gln Gly Ala Lys Val Leu Gly Val Phe Gly Glu Leu Asp
 50 55 60
 Leu His Gly Ile Pro His Ser Ile Tyr Lys Thr Lys Leu Ser Glu Thr
 65 70 75 80
 Ala Phe Ala Gly Ser Lys Val Leu Ser Leu Met Asp Ala Val Asp Trp
 85 90 95
 Gln Glu Gly Glu Glu Ile Val Ile Thr Thr Thr Ser Tyr Asp Phe His
 100 105 110
 Gln Thr Glu Thr Arg Ser Ile Val Lys Ile Leu His Asp His Lys Ile
 115 120 125
 Leu Ile Leu Asn Asp Ser Leu Ser Tyr Thr His Phe Ala Glu Lys Tyr
 130 135 140
 His Val Pro Gly Thr Gly Glu Ser Tyr Thr Leu Ala Ala Asp Val Gly
 145 150 155 160
 Ile Leu Ser Arg Asn Ile Lys Ile Val Gly Glu Asp Tyr Pro Gly Trp
 165 170 175
 Ser Glu Asp Ser Phe Gly Ala Arg Val Leu Val Gly Ser Phe Thr Glu
 180 185 190

Asn Met Met Thr Phe Lys Gly Asn Ala Arg Ile Ser Asn Val Glu Phe			
195	200	205	
Tyr His Ser Gly Gln Glu Gly Phe Arg Asp Ser Thr Asp Pro Arg Tyr			
210	215	220	
Ala Val Thr Phe Leu Asn Leu Gly Gln Ile Gln Glu His Gly Ser Ser			
225	230	235	240
Tyr Ile Arg Gly Cys Ala Phe His His Gly Phe Ser Pro Ala Ile Gly			
	245	250	255
Val Phe Gly Thr Asp Gly Leu Asp Ile Asp Asp Asn Ile Ile His Phe			
	260	265	270
Thr Val Gly Glu Gly Ile Arg Ile Trp Gly Asn Ala Asn Arg Val Arg			
	275	280	285
Gly Asn Leu Ile Ala Leu Ser Val Trp Pro Gly Thr Tyr Gln Asn Arg			
	290	295	300
Lys Asp Leu Ser Ser Thr Leu Trp His Ala Ala Ile Glu Ile Asn Arg			
305	310	315	320
Gly Thr Asn Thr Val Leu Gln Asn Asn Val Val Ala Gly Phe Gly Arg			
	325	330	335
Ala Gly Tyr Arg Ile Asp Gly Glu Pro Cys Pro Gly Gln Phe Asn Pro			
	340	345	350
Val Glu Lys Trp Phe Asp Asn Glu Ala His Gly Gly Leu Tyr Gly Ile			
	355	360	365
Tyr Met Asn Gln Asp Gly Leu Pro Gly Cys Ser Leu Ile Gln Gly Phe			
	370	375	380
Thr Ile Trp Thr Cys Trp Asp Tyr Gly Ile Tyr Phe Gln Thr Thr Glu			
385	390	395	400
Ser Val His Ile Tyr Asn Val Thr Leu Val Asp Asn Gly Met Ala Ile			
	405	410	415
Phe Pro Met Ile Tyr Met Pro Ala Ala Ile Ser His Lys Ile Ser Ser			
	420	425	430
Lys Asn Val Gln Ile Lys Ser Ser Leu Ile Val Gly Ser Ser Pro Gly			
	435	440	445
Phe Asn Cys Ser Asp Val Leu Thr Asn Asp Asp Pro Asn Ile Glu Leu			
	450	455	460
Thr Ala Ala His Arg Ser Pro Arg Ser Pro Ser Gly Gly Arg Ser Gly			
465	470	475	480

Ile Arg Trp Pro Thr Phe Ala Ser Ala His Asn Met Ala Pro Arg Lys
 485 490 495
 Pro His Ala Gly Ile Met Ser Tyr Asn Ala Ile Ser Gly Leu Leu Asp
 500 505 510
 Ile Ser Gly Ser Thr Phe Val Gly Phe Lys Asn Val Cys Ser Gly Glu
 515 520 525
 Thr Asn Val Ile Phe Ile Thr Asn Pro Leu Asn Glu Asp Leu Gln His
 530 535 540
 Pro Ile His Val Lys Asn Ile Lys Leu Val Asp Thr Thr Glu Gln Ser
 545 550 555 560
 Lys Ile Phe Ile His Arg Pro Asp Ile Ser Lys Val Asn Pro Ser Asp
 565 570 575
 Cys Val Asp Met Val Cys Asp Ala Lys Arg Lys Ser Phe Leu Arg Asp
 580 585 590
 Ile Asp Gly Ser Phe Leu Gly Asn Ala Gly Ser Val Ile Pro Gln Ala
 595 600 605
 Glu Tyr Glu Trp Asp Gly Asn Ser Gln Val Gly Ile Gly Asp Tyr Arg
 610 615 620
 Ile Pro Lys Ala Met Leu Thr Phe Leu Asn Gly Ser Arg Ile Pro Val
 625 630 635 640
 Thr Glu Lys Ala Pro His Lys Gly Ile Ile Arg Asp Ser Thr Cys Lys
 645 650 655
 Tyr Leu Pro Glu Trp Gln Ser Tyr Gln Cys Phe Gly Met Glu Tyr Ala
 660 665 670
 Met Met Val Ile Glu Ser Leu Asp Pro Asp Thr Glu Thr Arg Arg Leu
 675 680 685
 Ser Pro Val Ala Ile Met Gly Asn Gly Tyr Val Asp Leu Ile Asn Gly
 690 695 700
 Pro Gln Asp His Gly Trp Cys Ala Gly Tyr Thr Cys Gln Arg Arg Leu
 705 710 715 720
 Ser Leu Phe His Ser Ile Val Ala Leu Asn Lys Ser Tyr Glu Val Tyr
 725 730 735
 Phe Thr Gly Thr Ser Pro Gln Asn Leu Arg Leu Met Leu Leu Asn Val
 740 745 750
 Asp His Asn Lys Ala Val Leu Val Gly Ile Phe Phe Ser Thr Leu Gln
 755 760 765

Arg Leu Asp Val Tyr Val Asn Asn Leu Leu Val Cys Pro Lys Thr Thr
 770 775 780
 Ile Trp Asn Ala Gln Gln Lys His Cys Glu Leu Asn Asn His Leu Tyr
 785 790 795 800
 Lys Asp Gln Phe Leu Pro Asn Leu Asp Ser Thr Val Leu Gly Glu Asn
 805 810 815
 Tyr Phe Asp Gly Thr Tyr Gln Met Leu Tyr Leu Leu Val Lys Gly Thr
 820 825 830
 Ile Pro Val Glu Ile His Thr Ala Thr Val Ile Phe Val Ser Phe Gln
 835 840 845
 Leu Ser Val Ala Thr Glu Asp Asp Phe Tyr Thr Ser His Asn Leu Val
 850 855 860
 Lys Asn Leu Ala Leu Phe Leu Lys Ile Pro Ser Asp Lys Ile Arg Ile
 865 870 875 880
 Ser Lys Ile Arg Gly Lys Ser Leu Arg Arg Lys Arg Ser Met Gly Phe
 885 890 895
 Ile Ile Glu Ile Glu Ile Gly Asp Pro Pro Ile Gln Phe Ile Ser Asn
 900 905 910
 Gly Thr Thr Gly Gln Met Gln Leu Ser Glu Leu Gln Glu Ile Ala Gly
 915 920 925
 Ser Leu Gly Gln Ala Val Ile Leu Gly Asn Ile Ser Ser Ile Leu Gly
 930 935 940
 Phe Asn Ile Ser Ser Met Ser Ile Thr Asn Pro Leu Pro Ser Pro Ser
 945 950 955 960
 Asp Ser Gly Trp Ile Lys Val Thr Ala Gln Pro Val Glu Arg Ser Ala
 965 970 975
 Phe Pro Val His His Val Ala Phe Val Ser Ser Leu Leu Val Ile Thr
 980 985 990
 Gln Pro Val Ala Ala Gln Pro Gly Gln Pro Phe Pro Gln Gln Pro Ser
 995 1000 1005
 Val Lys Ala Thr Asp Ser Asp Gly Asn Cys Val Ser Val Gly Ile Thr
 1010 1015 1020
 Ala Leu Thr Leu Arg Ala Ile Leu Lys Asp Ser Asn Asn Asn Gln Val
 1025 1030 1035 1040
 Asn Gly Leu Ser Gly Asn Thr Thr Ile Pro Phe Ser Ser Cys Trp Ala
 1045 1050 1055

Asn Tyr Thr Asp Leu Thr Pro Leu Arg Thr Gly Lys Asn Tyr Lys Ile
 1060 1065 1070
 Glu Phe Ile Leu Asp Asn Val Val Gly Val Glu Ser Arg Thr Phe Ser
 1075 1080 1085
 Leu Leu Ala Glu Ser Val Ser Ser Ser Gly Ser Ser Ser Ser Ser Asn
 1090 1095 1100
 Ser Lys Ala Ser Thr Val Gly Thr Tyr Ala Gln Ile Met Thr Val Val
 1105 1110 1115 1120
 Ile Ser Cys Leu Val Gly Arg Met Trp Leu Leu Glu Ile Phe Met Ala
 1125 1130 1135
 Ala Val Ser Thr Leu Asn Ile Thr Leu Arg Ser Tyr
 1140 1145

<210> 4900

<211> 300

<212> PRT

<213> Homo sapiens

<400> 4900

Met His Ser Leu Lys Lys Val Thr Phe Glu Asp Val Ala Ile Asp Phe
 1 5 10 15
 Thr Gln Glu Glu Trp Ala Met Met Asp Thr Ser Lys Arg Lys Leu Tyr
 20 25 30
 Arg Asp Val Met Leu Glu Asn Ile Ser His Leu Val Ser Leu Gly Tyr
 35 40 45
 Gln Ile Ser Lys Ser Tyr Ile Ile Leu Gln Leu Glu Gln Gly Lys Glu
 50 55 60
 Leu Trp Arg Glu Gly Arg Glu Phe Leu Gln Asp Gln Asn Pro Asp Arg
 65 70 75 80
 Glu Ser Ala Leu Lys Lys Lys His Met Ile Ser Met His Pro Ile Thr
 85 90 95
 Arg Lys Asp Ala Ser Thr Ser Met Thr Met Glu Asn Ser Leu Ile Leu
 100 105 110
 Glu Asp Pro Phe Glu Cys Asn Asp Ser Gly Glu Asp Cys Thr His Ser
 115 120 125

Ser Thr Ile Thr Gln Arg Leu Leu Thr His Ser Gly Lys Lys Pro Tyr
 130 135 140
 Val Ser Lys Gln Cys Gly Lys Ser Leu Arg Asn Leu Phe Ser Pro Lys
 145 150 155 160
 Pro His Lys Gln Ile His Thr Lys Gly Lys Ser Tyr Gln Cys Asn Leu
 165 170 175
 Cys Glu Lys Ala Tyr Thr Asn Cys Phe Arg Leu Arg Arg His Lys Met
 180 185 190
 Thr His Thr Gly Glu Arg Pro Tyr Ala Cys His Leu Cys Gly Lys Ala
 195 200 205
 Phe Thr Gln Cys Ser His Leu Arg Arg His Glu Lys Thr His Thr Gly
 210 215 220
 Glu Arg Pro Tyr Lys Cys His Gln Cys Gly Lys Ala Phe Ile Gln Ser
 225 230 235 240
 Phe Asn Leu Arg Arg His Glu Arg Thr His Leu Gly Lys Lys Cys Tyr
 245 250 255
 Glu Cys Asp Lys Ser Gly Lys Ala Phe Ser Gln Ser Ser Gly Phe Arg
 260 265 270
 Gly Asn Lys Ile Ile His Thr Gly Glu Lys Pro His Ala Cys Leu Leu
 275 280 285
 Cys Gly Lys Ala Phe Ser Leu Ser Ser Asp Leu Arg
 290 295 300

<210> 4901

<211> 1216

<212> PRT

<213> Homo sapiens

<400> 4901

Met Ser Gln Ala Gly Asp Val Glu Gly Pro Ser Thr Gly Asp Pro Val
 1 5 10 15
 Leu Ser Pro Gln His Asn Cys Glu Leu Leu Gln Asn Met Glu Gly Ala
 20 25 30
 Ser Ser Met Pro Gly Leu Ser Pro Asp Gly Pro Gly Ala Ser Ser Gly
 35 40 45

Pro Gly Val Arg Ala Gly Ser Arg Arg Lys Ile Pro Arg Lys Glu Ala
 50 55 60
 Leu Arg Gly Gly Ser Ser Arg Ala Ala Gly Ala Ala Glu Val Arg Pro
 65 70 75 80
 Gly Val Leu Glu Leu Leu Ala Val Val Gln Ser Arg Gly Ser Met Leu
 85 90 95
 Ala Pro Gly Leu His Met Gln Leu Pro Ser Val Pro Thr Gln Gly Arg
 100 105 110
 Ala Leu Thr Ser Lys Arg Leu Gln Val Ser Leu Cys Asp Ile Leu Asp
 115 120 125
 Asp Ser Cys Pro Arg Lys Leu Cys Ser Arg Ser Ala Gly Leu Pro Glu
 130 135 140
 Arg Ala Leu Ala Cys Arg Glu Arg Leu Ala Gly Val Glu Glu Val Ser
 145 150 155 160
 Cys Leu Arg Pro Arg Glu Ala Arg Asp Gly Gly Met Ser Ser Pro Gly
 165 170 175
 Cys Asp Arg Arg Ser Pro Thr Leu Ser Lys Glu Glu Pro Pro Gly Arg
 180 185 190
 Pro Leu Thr Ser Ser Pro Asp Pro Val Pro Val Arg Val Arg Lys Lys
 195 200 205
 Trp Arg Arg Gln Gly Ala His Ser Glu Cys Glu Glu Gly Ala Gly Asp
 210 215 220
 Phe Leu Trp Leu Asp Gln Ser Pro Arg Gly Asp Asn Leu Leu Ser Val
 225 230 235 240
 Gly Asp Pro Pro Gln Val Ala Asp Leu Glu Ser Leu Gly Gly Pro Cys
 245 250 255
 Arg Pro Pro Ser Pro Lys Asp Thr Gly Ser Gly Pro Gly Glu Pro Gly
 260 265 270
 Gly Ser Gly Ala Gly Cys Ala Ser Gly Thr Glu Lys Phe Gly Tyr Leu
 275 280 285
 Pro Ala Thr Gly Asp Gly Pro Gln Pro Gly Ser Pro Cys Gly Pro Val
 290 295 300
 Gly Phe Pro Val Pro Ser Gly Gly Glu Ser Leu Ser Ser Ala Ala Gln
 305 310 315 320
 Ala Pro Pro Gln Ser Ala Ala Leu Cys Leu Gly Ala Ser Ala Gln Ala
 325 330 335

Ser Ala Glu Gln Gln Glu Ala Val Cys Val Val Arg Thr Gly Ser Asp
 340 345 350
 Glu Gly Gln Ala Pro Ala Gln Asp Gln Glu Glu Leu Glu Ala Lys Ala
 355 360 365
 Gln Pro Ala Ser Arg Gly Arg Leu Glu Gln Gly Leu Ala Ala Pro Ala
 370 375 380
 Asp Thr Cys Ala Ser Ser Arg Glu Pro Leu Gly Gly Leu Ser Ser Ser

 385 390 395 400
 Leu Asp Thr Glu Ala Ser Arg Ala Cys Ser Gly Pro Phe Met Glu Gln
 405 410 415
 Arg Arg Ser Lys Gly Thr Lys Asn Leu Lys Lys Gly Pro Val Pro Cys
 420 425 430
 Ala Gln Asp Arg Gly Thr Asp Arg Ser Ser Asp Asn Ser His Gln Asp
 435 440 445
 Arg Pro Glu Glu Pro Ser Pro Gly Gly Cys Pro Arg Leu Glu Glu Val
 450 455 460
 Lys Ile Pro His Gly Val Lys Leu Val Cys Tyr Leu Gly Ser Gly Pro
 465 470 475 480
 Val Ile Gln Leu Leu Gly Ala Ile Ser His Gly Gln Ala Gly Gly Gln
 485 490 495
 Leu Pro Pro Lys Leu Glu Val Leu Glu Asp Leu Met Glu Val Ser Ser
 500 505 510
 Pro Ser Pro Ala Gln Arg Leu Arg Arg Lys Lys Arg Pro Met Val Gln
 515 520 525
 Gly Pro Ala Gly Cys Gln Val Phe Gln Pro Ser Pro Ser Gly Gly Thr
 530 535 540
 Ala Gly Asp Pro Gly Gly Leu Ser Asp Pro Phe Tyr Pro Pro Arg Ser
 545 550 555 560
 Gly Ser Leu Ala Leu Gly Asp Pro Ser Ser Asp Pro Ala Cys Ser Gln
 565 570 575
 Ser Gly Pro Met Glu Ala Glu Glu Asp Ser Leu Pro Glu Gln Pro Glu
 580 585 590
 Asp Ser Ala Gln Leu Gln Gln Glu Lys Pro Ser Leu Tyr Ile Gly Val
 595 600 605
 Arg Gly Thr Val Val Arg Ser Met Gln Glu Val Leu Trp Thr Arg Leu

610	615	620	
Arg Glu Leu Pro Asp	Pro Val Leu Ser Glu	Glu Val Val Glu Gly Ile	
625	630	635	640
Ala Ala Gly Ile Glu	Ala Ala Leu Trp Asp	Leu Thr Gln Gly Thr Asn	
	645	650	655
Gly Arg Tyr Lys Thr	Lys Tyr Arg Ser Leu	Leu Phe Asn Leu Arg Asp	
	660	665	670
Pro Arg Asn Leu Asp	Leu Phe Leu Lys Val	Val His Gly Asp Val Thr	
	675	680	685
Pro Tyr Asp Leu Val	Arg Met Ser Ser Met	Gln Leu Ala Pro Gln Glu	
690	695	700	
Leu Ala Arg Trp Arg	Asp Gln Glu Glu Lys	Arg Gly Leu Asn Ile Ile	
705	710	715	720
Glu Gln Gln Gln Lys	Glu Pro Cys Arg Leu	Pro Ala Ser Lys Met Thr	
	725	730	735
His Lys Gly Glu Val	Glu Ile Gln Arg Asp	Met Asp Gln Thr Leu Thr	
	740	745	750
Leu Glu Asp Leu Val	Gly Pro Gln Met Phe	Met Asp Cys Ser Pro Gln	
	755	760	765
Ala Leu Pro Ile Ala	Ser Glu Asp Thr Thr	Gly Gln His Asp His His	
770	775	780	
Phe Leu Asp Pro Asn	Cys His Ile Cys Lys	Asp Trp Glu Pro Ser Asn	
785	790	795	800
Glu Leu Leu Gly Ser	Phe Glu Ala Ala Lys	Ser Cys Gly Asp Asn Ile	
	805	810	815
Phe Gln Lys Ala Leu	Ser Gln Thr Pro Met	Pro Ala Pro Glu Met Pro	
	820	825	830
Lys Thr Arg Glu Leu	Ser Pro Thr Glu Pro	Gln Asp Arg Val Pro Pro	
	835	840	845
Ser Gly Leu His Val	Pro Ala Ala Pro Thr	Lys Ala Leu Pro Cys Leu	
850	855	860	
Pro Pro Trp Glu Gly	Val Leu Asp Met Phe	Ser Ile Lys Arg Phe Arg	
865	870	875	880
Ala Arg Ala Gln Leu	Val Ser Gly His Ser	Cys Arg Leu Val Gln Ala	
	885	890	895
Leu Pro Thr Val Ile	Arg Ser Ala Gly Cys	Ile Pro Ser Asn Ile Val	

900	905	910
Trp Asp Leu Leu Ala Ser Ile Cys Pro Ala Lys Ala Lys Asp Val Cys		
915	920	925
Val Val Arg Leu Cys Pro His Gly Ala Arg Asp Thr Gln Asn Cys Arg		
930	935	940
Leu Leu Tyr Ser Tyr Leu Asn Asp Arg Gln Arg His Gly Leu Ala Ser		
945	950	955
Val Glu His Met Gly Met Val Leu Leu Pro Leu Pro Ala Phe Gln Pro		
965	970	975
Leu Pro Thr Arg Leu Arg Pro Leu Gly Gly Pro Gly Leu Trp Ala Leu		
980	985	990
Pro Val Ser Pro Leu Leu Ser Pro Gly Leu Glu Val Thr His Ser Ser		
995	1000	1005
Leu Leu Leu Ala Val Leu Leu Pro Lys Glu Gly Leu Pro Asp Thr Ala		
1010	1015	1020
Gly Ser Ser Pro Trp Leu Gly Lys Val Gln Lys Met Val Ser Phe Asn		
1025	1030	1035
Ser Lys Val Glu Lys Arg Tyr Tyr Gln Pro Asp Asp Arg Arg Pro Asn		
1045	1050	1055
Val Pro Leu Lys Gly Thr Pro Pro Pro Gly Gly Ala Trp Gln Gln Ser		
1060	1065	1070
Gln Gly Arg Gly Ser Ile Ala Pro Arg Gly Ile Ser Ala Trp Gln Arg		
1075	1080	1085
Pro Pro Arg Gly Arg Gly Arg Leu Trp Pro Glu Pro Glu Asn Trp Gln		
1090	1095	1100
His Pro Gly Arg Gly Gln Trp Pro Pro Glu Pro Gly Leu Arg Gln Ser		
1105	1110	1115
Gln His Pro Tyr Ser Val Ala Pro Ala Gly His Gly Phe Gly Arg Gly		
1125	1130	1135
Gln His Phe His Arg Asp Ser Cys Pro His Gln Ala Leu Leu Arg His		
1140	1145	1150
Leu Glu Ser Leu Ala Thr Met Ser His Gln Leu Gln Ala Leu Leu Cys		
1155	1160	1165
Pro Gln Thr Lys Ser Ser Ile Pro Arg Pro Leu Gln Arg Leu Ser Ser		
1170	1175	1180
Ala Leu Ala Ala Pro Glu Pro Pro Gly Pro Ala Arg Asp Ser Ser Leu		

1185 1190 1195 1200
 Gly Pro Thr Asp Glu Ala Gly Ser Glu Cys Pro Phe Pro Arg Lys Ala
 1205 1210 1215

<210> 4902

<211> 435

<212> PRT

<213> Homo sapiens

<400> 4902

Met Arg Lys Leu Leu Thr Asn Leu Pro Ala Ala Ala Val Leu Ser Ala
 1 5 10 15
 Gln Val Tyr Ser Ala Val Leu Arg Gly Leu Trp Glu Glu Asn Val Cys
 20 25 30
 Gly Thr Pro Gly Arg Thr Arg Val Cys Thr Ala Leu Leu Tyr Gly Gln
 35 40 45
 Val Cys Pro Phe Gln Asp Ser Thr Asp Gly Leu Arg Thr Ile Thr Ser
 50 55 60
 Ile Leu Phe Asn Trp Pro Pro Glu Asn Thr Ser Val Tyr Tyr Gln Pro
 65 70 75 80
 Pro Gln Arg Ser Ser Phe Arg Ile Lys Leu Ala Phe Arg Asn Leu Ser
 85 90 95
 Trp Pro Gly Leu Gly Leu Glu Asp His Gln Glu Ile Val Leu Gly Gln
 100 105 110
 Leu Val Leu Pro Glu Pro Asn Glu Ala Lys Pro Asp Asp Pro Ala Pro
 115 120 125
 Arg Pro Gly Gln His Ala Leu Thr Met Pro Ala Leu Glu Pro Ala Pro
 130 135 140
 Pro Leu Leu Ala Asp Leu Gly Pro Ala Leu Glu Pro Glu Ser Pro Ala
 145 150 155 160
 Ala Leu Gly Pro Pro Gly Tyr Leu His Ser Ala Pro Gly Pro Ala Pro
 165 170 175
 Ala Pro Gly Glu Glu Pro Pro Pro Gly Thr Val Leu Glu Pro Gln Ser
 180 185 190
 Ala Pro Glu Ser Ser Cys Pro Cys Arg Gly Ser Val Lys Asn Gln Pro

195	200	205
Ser Glu Glu Leu Pro Asp Met Thr Thr Phe Pro Pro Arg Leu Leu Ala		
210	215	220
Glu Gln Leu Thr Leu Met Asp Ala Glu Leu Phe Lys Lys Val Val Leu		
225	230	235
Tyr Glu Cys Leu Gly Cys Ile Trp Gly Gln Gly His Leu Lys Gly Asn		
245	250	255
Glu His Met Ala Pro Thr Val Arg Ala Thr Ile Ala His Phe Asn Arg		
260	265	270
Leu Thr Asn Cys Ile Thr Thr Ser Cys Leu Gly Asp His Ser Met Arg		
275	280	285
Ala Arg Asp Arg Ala Arg Val Val Glu His Trp Ile Lys Val Ala Arg		
290	295	300
Glu Cys Leu Ser Leu Asn Asn Phe Ser Ser Val His Val Ile Val Ser		
305	310	315
Ala Leu Cys Ser Asn Pro Ile Gly Gln Leu His Lys Thr Trp Ala Gly		
325	330	335
Val Ser Ser Lys Ser Met Lys Glu Leu Lys Glu Leu Cys Lys Lys Asp		
340	345	350
Thr Ala Val Lys Arg Asp Leu Leu Ile Lys Arg Asp Asp Gly Glu Asn		
355	360	365
Asn Gly Asn Ser Tyr Arg Lys Leu Ser Pro Gln Arg Pro Cys Glu Val		
370	375	380
Ala Val Val Cys Ile Thr Leu Tyr Arg Arg Gly Asn Ser Leu Arg Glu		
385	390	395
Ala Arg Leu Gln Asp Trp Val Thr His Thr Gly Ser Val Asp Leu Gly		
405	410	415
Gln Trp Arg Gly Ala Leu Arg Trp Pro Pro Arg Arg Gly Thr Pro Arg		
420	425	430
Glu Pro Arg		
435		

<210> 4903

<211> 171

<212> PRT

<213> Homo sapiens

<400> 4903

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Met Gly Lys Ser Glu Ile Lys Arg Thr Gly Gly Phe Gly Ser Thr Asn
  1             5             10             15
Lys Gln Gly Lys Ala Ala Tyr Trp Val Asn Gln Ile Thr Asp Lys Cys
          20             25             30
Pro Thr Cys Glu Ile Thr Ile Gln Gly Lys Lys Phe Lys Gly Leu Val
          35             40             45
Asp Thr Arg Ala Asp Ile Ser Ile Ile Ser Leu Gln His Trp Pro Ser
          50             55             60
Thr Trp Pro Ile Gln Pro Thr Gln Phe Asn Ile Val Gly Val Gly Glu
          65             70             75             80
Ala Pro Glu Val Tyr Gln Ser Ser Ser Val Leu Pro Cys Glu Gly Pro
          85             90             95
Asp Gly Gln Pro Glu Thr Ile Gln Pro Ile Ile Thr Ser Val Ser Ile
          100            105            110
Asn Leu Trp Gly Arg Asp Leu Leu Gln Gln Cys Arg Ala Gln Val Leu
          115            120            125
Ile Pro Glu Gln Leu Tyr Ser Pro Gln Ser Gln His Met Met His Glu
          130            135            140
Met Gly Tyr Val Pro Gly Met Gly Leu Gln Lys Asn Leu Gln Gly Leu
          145            150            155            160
Lys Ser Ser Arg Gln Arg Leu Gly Asn Asn Phe
          165            170

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<210> 4904

<211> 599

<212> PRT

<213> Homo sapiens

<400> 4904

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Met Asp Pro Pro Met Asp Asp Gln Pro Gly Glu Lys Glu Leu Val Lys
  1             5             10             15
Arg Ser Gln Leu Asp Gly Glu Gly Asp Gly Pro Leu Ser Asn Gln Leu

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Ser Ser Asp Gly Lys Ser Tyr Val Ile Thr Gly Ser Trp Asn Pro Lys
 305 310 315 320
 Ser Pro His Phe Gln Val Val Asn Glu Glu Thr Pro Lys Asp Lys Val
 325 330 335
 Leu Phe Met Thr Thr Ala Val Asp Leu Val Ile Thr Glu Val Gln Glu
 340 345 350
 Pro Val Arg Phe Leu Leu Glu Thr Lys Val Arg Val Cys Ser Pro Asn
 355 360 365
 Glu Arg Leu Phe Trp Pro Phe Ser Lys Arg Ser Thr Thr Glu Asn Phe
 370 375 380
 Phe Leu Lys Leu Lys Gln Ile Lys Gln Arg Glu Arg Lys Asn Asn Thr
 385 390 395 400
 Asp Thr Leu Tyr Glu Val Val Cys Leu Glu Ser Glu Ser Glu Arg Glu
 405 410 415
 Arg Arg Lys Thr Thr Ala Ser Pro Ser Val Arg Leu Pro Gln Ser Gly
 420 425 430
 Ser Gln Ser Ser Val Ile Pro Ser Pro Pro Glu Asp Asp Glu Glu Glu
 435 440 445
 Asp Asn Asp Glu Pro Leu Leu Ser Gly Ser Gly Asp Val Ser Lys Glu
 450 455 460
 Cys Ala Glu Lys Ile Leu Glu Thr Trp Gly Glu Leu Leu Ser Lys Trp
 465 470 475 480
 His Leu Asn Leu Asn Val Arg Pro Lys Gln Leu Ser Ser Leu Val Arg
 485 490 495
 Asn Gly Val Pro Glu Ala Leu Arg Gly Glu Val Trp Gln Leu Leu Ala
 500 505 510
 Gly Cys His Asn Asn Asp His Leu Val Glu Lys Tyr Arg Ile Leu Ile
 515 520 525
 Thr Lys Glu Ser Pro Gln Asp Ser Ala Ile Thr Arg Asp Ile Asn Arg
 530 535 540
 Thr Phe Pro Ala His Asp Tyr Phe Lys Asp Thr Gly Gly Asp Gly Gln
 545 550 555 560
 Asp Ser Leu Tyr Lys Ile Cys Lys Val Phe His Val Lys Lys Lys Lys
 565 570 575
 Asp Ser Ile Leu Ser Gly Gly Ser Thr Leu Lys Leu His Lys Lys Gln
 580 585 590

Leu Gln Ser Val Ile Cys Ile

595

<210> 4905

<211> 1340

<212> PRT

<213> Homo sapiens

<400> 4905

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Met Leu Arg Lys Gly Ala Asn Arg Tyr Leu Thr Val Lys Lys Lys Asp
 1             5             10             15
Gly Ser Glu Thr Ala His Ala Met Met Thr Cys Asn Leu Thr His Asn
      20             25             30
Thr Lys His Ala Val Arg Ser Leu Ile Gln Arg Phe Pro Val Thr Asn
      35             40             45
Lys Glu Arg Thr Glu Leu Leu Pro Lys Thr Glu Arg Gly Asn Val Phe
      50             55             60
Ala Val Glu Ala Glu Asn Arg Glu Met Ser Lys Thr Ser Gly Arg Leu
      65             70             75             80
Asn Asn Gly Ile Pro Gln Ile Pro Val Lys Arg Gly Glu Ser Glu Phe
      85             90             95
Asp Ser Phe Arg Gln Ser Leu Pro Val Phe Glu Lys Gln Glu Glu Ile
      100            105            110
Val Lys Ile Ile Lys Glu Asn Lys Val Val Leu Ile Val Gly Glu Thr
      115            120            125
Gly Ser Gly Lys Thr Thr Gln Ile Pro Gln Phe Leu Leu Asp Asp Cys
      130            135            140
Phe Lys Asn Gly Ile Pro Cys Arg Ile Phe Cys Thr Gln Pro Arg Arg
      145            150            155            160
Leu Ala Ala Ile Ala Val Ala Glu Arg Val Ala Ala Glu Arg Arg Glu
      165            170            175
Arg Ile Gly Gln Thr Ile Gly Tyr Gln Ile Arg Leu Glu Ser Arg Val
      180            185            190
Ser Pro Lys Thr Leu Leu Thr Phe Cys Thr Asn Gly Val Leu Leu Arg
      195            200            205

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Thr Leu Met Ala Gly Asp Ser Thr Leu Ser Thr Val Thr His Val Ile
 210 215 220
 Val Asp Glu Val His Glu Arg Asp Arg Phe Ser Asp Phe Leu Leu Thr
 225 230 235 240
 Lys Leu Arg Asp Leu Leu Gln Lys His Pro Thr Leu Lys Leu Ile Leu
 245 250 255
 Ser Ser Ala Ala Leu Asp Val Asn Leu Phe Ile Arg Tyr Phe Gly Ser
 260 265 270
 Cys Pro Val Ile Tyr Ile Gln Gly Arg Pro Phe Glu Val Lys Glu Met
 275 280 285
 Phe Leu Glu Asp Ile Leu Arg Thr Thr Gly Tyr Thr Asn Lys Glu Met
 290 295 300
 Leu Lys Tyr Lys Lys Glu Lys Gln Gln Glu Glu Lys Gln Gln Thr Thr
 305 310 315 320
 Leu Thr Glu Trp Tyr Ser Ala Gln Glu Asn Ser Phe Lys Pro Glu Ser
 325 330 335
 Gln Arg Gln Arg Thr Val Leu Asn Val Thr Asp Glu Tyr Asp Leu Leu
 340 345 350
 Asp Asp Gly Gly Asp Ala Val Phe Ser Gln Leu Thr Glu Lys Asp Val
 355 360 365
 Asn Cys Leu Glu Pro Trp Leu Ile Lys Glu Met Asp Ala Cys Leu Ser
 370 375 380
 Asp Ile Trp Leu His Lys Asp Ile Asp Ala Phe Ala Gln Val Phe His
 385 390 395 400
 Leu Ile Leu Thr Glu Asn Val Ser Val Asp Tyr Arg His Ser Glu Thr
 405 410 415
 Ser Ala Thr Ala Leu Met Val Ala Ala Gly Arg Gly Phe Ala Ser Gln
 420 425 430
 Val Glu Gln Leu Ile Ser Met Gly Ala Asn Val His Ser Lys Ala Ser
 435 440 445
 Asn Gly Trp Met Ala Leu Asp Trp Ala Lys His Phe Gly Gln Thr Glu
 450 455 460
 Ile Val Asp Leu Leu Glu Ser Tyr Ser Ala Ser Leu Glu Phe Gly Asn
 465 470 475 480
 Leu Asp Glu Ser Ser Leu Val Gln Thr Asn Gly Ser Asp Leu Ser Ala
 485 490 495

Glu Asp Arg Glu Leu Leu Lys Ala Tyr His His Ser Phe Asp Asp Glu
 500 505 510
 Lys Val Asp Leu Asp Leu Ile Met His Leu Leu Tyr Asn Ile Cys His
 515 520 525
 Ser Cys Asp Ala Gly Ala Val Leu Ile Phe Leu Pro Gly Tyr Asp Glu
 530 535 540
 Ile Val Gly Leu Arg Asp Arg Ile Leu Phe Asp Asp Lys Arg Phe Ala
 545 550 555 560
 Asp Asn Thr His Arg Tyr Gln Val Phe Met Leu His Ser Asn Met Gln
 565 570 575
 Thr Ser Asp Gln Lys Lys Val Leu Lys Asn Pro Pro Ala Gly Val Arg
 580 585 590
 Lys Ile Ile Leu Ser Thr Asn Ile Ala Glu Thr Ser Ile Thr Val Asn
 595 600 605
 Asp Val Val Phe Val Ile Asp Ser Gly Lys Val Lys Glu Lys Ser Phe
 610 615 620
 Asp Ala Leu Asn Phe Val Thr Met Leu Lys Met Val Trp Ile Ser Lys
 625 630 635 640
 Ala Ser Ala Ile Gln Arg Lys Gly Arg Ala Gly Arg Cys Arg Pro Gly
 645 650 655
 Ile Cys Phe Arg Leu Phe Ser Arg Leu Arg Phe Gln Asn Met Leu Glu
 660 665 670
 Phe Gln Thr Pro Glu Leu Leu Arg Met Pro Leu Gln Glu Leu Cys Leu
 675 680 685
 His Thr Lys Leu Leu Ala Pro Val Asn Cys Pro Ile Ala Asp Phe Leu
 690 695 700
 Met Lys Ala Pro Glu Pro Pro Pro Ala Leu Ile Val Arg Asn Ala Val
 705 710 715 720
 Gln Met Leu Lys Thr Ile Asp Ala Met Asp Thr Trp Glu Asp Leu Thr
 725 730 735
 Glu Leu Gly Tyr His Leu Ala Asp Leu Pro Val Glu Pro His Leu Gly
 740 745 750
 Lys Met Val Leu Cys Ala Val Val Leu Lys Cys Leu Asp Pro Ile Leu
 755 760 765
 Thr Ile Ala Cys Thr Leu Ala Tyr Arg Asp Pro Phe Val Leu Pro Thr
 770 775 780

Gln Ala Ser Gln Lys Arg Ala Ala Met Leu Cys Arg Lys Arg Phe Thr
 785 790 795 800
 Ala Gly Ala Phe Ser Asp His Met Ala Leu Leu Arg Ala Phe Gln Ala
 805 810 815
 Trp Gln Lys Ala Arg Ser Asp Gly Trp Glu Arg Ala Phe Cys Glu Lys
 820 825 830
 Asn Phe Leu Ser Gln Ala Thr Met Glu Ile Ile Ile Gly Met Arg Thr
 835 840 845
 Gln Leu Leu Gly Gln Leu Arg Ala Ser Gly Phe Val Arg Ala Arg Gly
 850 855 860
 Gly Gly Asp Ile Arg Asp Val Asn Thr Asn Ser Glu Asn Trp Ala Val
 865 870 875 880
 Val Lys Ala Ala Leu Val Ala Gly Met Tyr Pro Asn Leu Val His Val
 885 890 895
 Asp Arg Glu Asn Leu Val Leu Thr Gly Pro Lys Glu Lys Lys Val Arg
 900 905 910
 Phe His Pro Ala Ser Val Leu Ser Gln Pro Gln Tyr Lys Lys Ile Pro
 915 920 925
 Pro Ala Asn Gly Gln Ala Ala Ala Ile Lys Ala Leu Pro Thr Asp Trp
 930 935 940
 Leu Ile Tyr Asp Glu Met Thr Arg Ala His Arg Ile Ala Asn Ile Arg
 945 950 955 960
 Cys Cys Ser Ala Val Thr Pro Val Thr Ile Leu Val Phe Cys Gly Pro
 965 970 975
 Ala Arg Leu Ala Ser Asn Ala Leu Gln Glu Pro Ser Ser Phe Arg Val
 980 985 990
 Asp Gly Ile Pro Asn Asp Ser Ser Asp Ser Glu Met Glu Asp Lys Thr
 995 1000 1005
 Thr Ala Asn Leu Ala Ala Leu Lys Leu Asp Glu Trp Leu His Phe Thr
 1010 1015 1020
 Leu Glu Pro Glu Ala Ala Ser Leu Leu Leu Gln Leu Arg Gln Lys Trp
 1025 1030 1035 1040
 His Ser Leu Phe Leu Arg Arg Met Arg Ala Pro Ser Lys Pro Trp Ser
 1045 1050 1055
 Gln Val Asp Glu Ala Thr Ile Arg Ala Ile Ile Ala Val Leu Ser Thr
 1060 1065 1070

Glu Glu Gln Ser Ala Gly Leu Gln Gln Pro Ser Gly Ile Gly Gln Arg
 1075 1080 1085
 Pro Arg Pro Met Ser Ser Glu Glu Leu Pro Leu Ala Ser Ser Trp Arg
 1090 1095 1100
 Ser Asn Asn Ser Arg Lys Ser Ser Ala Asp Thr Glu Phe Ser Asp Glu
 1105 1110 1115 1120
 Cys Thr Thr Ala Glu Arg Val Leu Met Lys Ser Pro Ser Pro Ala Leu
 1125 1130 1135
 His Pro Pro Gln Lys Tyr Lys Asp Arg Gly Ile Leu His Pro Lys Arg
 1140 1145 1150
 Gly Thr Glu Asp Arg Ser Asp Gln Ser Ser Leu Lys Ser Thr Asp Ser
 1155 1160 1165
 Ser Ser Tyr Pro Ser Pro Cys Ala Ser Pro Ser Pro Pro Ser Ser Gly
 1170 1175 1180
 Lys Gly Ser Lys Ser Pro Ser Pro Arg Pro Asn Met Pro Val Arg Tyr
 1185 1190 1195 1200
 Phe Ile Met Lys Ser Ser Asn Leu Arg Asn Leu Glu Ile Ser Gln Gln
 1205 1210 1215
 Lys Gly Ile Trp Ser Thr Thr Pro Ser Asn Glu Arg Lys Leu Asn Arg
 1220 1225 1230
 Ala Phe Trp Glu Ser Ser Ile Val Tyr Leu Val Phe Ser Val Gln Gly
 1235 1240 1245
 Ser Gly His Phe Gln Gly Phe Ser Arg Met Ser Ser Glu Ile Gly Arg
 1250 1255 1260
 Glu Lys Ser Gln Asp Trp Gly Ser Ala Gly Leu Gly Gly Val Phe Lys
 1265 1270 1275 1280
 Val Glu Trp Ile Arg Lys Glu Ser Leu Pro Phe Gln Phe Ala His His
 1285 1290 1295
 Leu Leu Asn Pro Trp Asn Asp Asn Lys Lys Val Gln Ile Ser Arg Asp
 1300 1305 1310
 Gly Gln Glu Leu Glu Pro Gln Val Gly Glu Gln Leu Leu Gln Leu Trp
 1315 1320 1325
 Glu Arg Leu Pro Leu Gly Glu Lys Asn Thr Thr Asp
 1330 1335 1340

<210> 4906

<211> 574

<212> PRT

<213> Homo sapiens

<400> 4906

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Met Thr Ala Gly Ser Val Cys Val Pro Gln Ile Ile Pro Leu Arg Val
  1             5             10             15
Pro Gln Pro Gly Lys Ala Asn His Glu Ile Asp Asn Asn Thr Leu Leu
          20             25             30
Glu Met Lys Ser Asp Thr Pro Asp Val Asn Ile Tyr Tyr Thr Leu Asp
          35             40             45
Gly Ser Lys Pro Glu Phe Leu Lys Arg Ile Gly Tyr Gly Glu Asn Asn
          50             55             60
Thr Phe Lys Tyr Ile Lys Pro Ile Thr Leu Pro Asp Gly Lys Ile Gln
          65             70             75             80
Val Lys Ala Ile Ala Val Ser Lys Asp Cys Arg Gln Ser Gly Ile Val
          85             90             95
Thr Lys Val Phe His Val Asp Tyr Glu Pro Pro Asn Ile Val Ser Pro
          100            105            110
Glu Asp Asn Val Glu Asn Val Leu Lys Asp Ser Ser Arg Gln Glu Phe
          115            120            125
Lys Asn Gly Phe Val Gly Ser Lys Leu Lys Lys Lys Tyr Lys Asn Ser
          130            135            140
Glu Asn Gln Arg Ser Trp Asn Val Asn Leu Arg Lys Phe Pro Glu Ser
          145            150            155            160
Pro Leu Glu Ile Pro Ala Tyr Gly Gly Gly Ser Gly Ser Arg Pro Pro
          165            170            175
Thr Arg Gln Ser Gln Ser Pro Gly Phe Ala His Val Ser Gly Gln Lys
          180            185            190
Cys Leu Thr Ser Thr Glu Ile Met Arg Ile Gln Arg Glu Thr Asp Phe
          195            200            205
Leu Lys Cys Ala His Cys Leu Ala Pro Arg Pro Ser Asp Pro Phe Ala
          210            215            220
Arg Phe Cys Gln Glu Cys Gly Ser Pro Val Pro Pro Ile Phe Gly Cys
          225            230            235            240

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Arg Leu Pro Pro Pro Glu Gly Ala Gln Met Gly Leu Cys Ala Glu Cys
 245 250 255
 Arg Ser Leu Val Pro Met Asn Thr Pro Ile Cys Val Val Cys Glu Ala
 260 265 270
 Pro Leu Ala Leu Gln Leu Gln Pro Gln Ala Ser Leu His Leu Lys Glu
 275 280 285
 Lys Val Ile Cys Arg Ala Cys Gly Thr Gly Asn Pro Ala His Leu Arg
 290 295 300

 Tyr Cys Val Thr Cys Glu Gly Ala Leu Pro Ser Ser Gln Glu Ser Met
 305 310 315 320
 Cys Ser Gly Asp Lys Ala Pro Pro Pro Pro Thr Gln Lys Gly Gly Thr
 325 330 335
 Ile Ser Cys Tyr Arg Cys Gly Arg Trp Asn Leu Trp Glu Ala Ser Phe
 340 345 350
 Cys Gly Trp Cys Gly Ala Met Leu Gly Ile Pro Ala Gly Cys Ser Val
 355 360 365
 Cys Pro Lys Cys Gly Ala Ser Asn His Leu Ser Ala Arg Phe Cys Gly
 370 375 380
 Ser Cys Gly Ile Cys Val Lys Ser Leu Val Lys Leu Ser Leu Asp Arg
 385 390 395 400
 Ser Leu Ala Leu Ala Ala Glu Glu Pro Arg Pro Phe Ser Glu Ser Leu
 405 410 415
 Asn Ile Pro Leu Pro Arg Ser Asp Val Gly Thr Lys Arg Asp Ile Gly
 420 425 430
 Thr Gln Thr Val Gly Leu Phe Tyr Pro Ser Gly Lys Leu Leu Ala Lys
 435 440 445
 Lys Glu Gln Glu Leu Ala Ser Gln Lys Gln Arg Gln Glu Lys Met Ser
 450 455 460
 Asp His Lys Pro Leu Leu Thr Ala Ile Ser Pro Gly Arg Gly Tyr Trp
 465 470 475 480
 Arg Arg Gln Leu Asp His Ile Ser Ala His Leu Arg Cys Tyr Ala Gln
 485 490 495
 Asn Asn Pro Glu Phe Arg Ala Leu Ile Ala Glu Pro Arg Met Gly Lys
 500 505 510
 Leu Ile Ser Ala Thr Val His Glu Asp Gly Cys Glu Val Ser Ile Arg

515 520 525
 Leu Asn Tyr Ser Gln Val Ser Asn Lys Val Arg Lys Leu Arg Leu Arg
 530 535 540
 Glu Val Lys Gln Pro Ala Ser Ser Lys Gly Thr Lys Leu Val Ser Gly
 545 550 555 560
 Arg Pro Arg Ile His Thr Trp Gln Pro Glu Thr Phe Pro Ser
 565 570

<210> 4907

<211> 534

<212> PRT

<213> Homo sapiens

<400> 4907

Met Gly Val Pro Thr Ala Val Ser Ala Thr Pro Val Arg Ala Asp Ala
 1 5 10 15
 Ser Ser Lys Pro Gln Pro Leu Leu Gln Ser Gln Pro His Leu Phe Phe
 20 25 30
 Phe Pro Lys Leu Leu Ser Arg Leu Leu Gly Ser Pro Leu Pro Val His
 35 40 45
 Ser Ala Gly Pro Gly Pro Leu Leu Thr Arg Met Pro Gln Ala Thr Thr
 50 55 60
 Val Ser Leu Arg Leu Gly Ser Trp Ser Leu Thr Glu Asp Arg Asp Val
 65 70 75 80
 Ser Gly Glu Trp Pro Arg Ala Phe Pro Asp Thr Pro Pro Gly Met Thr
 85 90 95
 Thr Ser Val Phe Pro Val Ala Asp Ala Cys His Ser Val Lys Ser Leu
 100 105 110
 Gln Arg Gln Pro Gly Ala Ser Pro Ser Gln Glu Arg Lys Pro Thr Gly
 115 120 125
 Val Ser Val Ile Tyr Trp Glu Arg Leu Leu Leu Gly Ser Arg Ser Asp
 130 135 140
 Gln Ala Ser Ile Ser Leu Arg Leu Thr Ser Pro Leu Arg Pro Pro Lys
 145 150 155 160
 Ser Ser Arg Pro Arg Glu Lys Thr Phe Thr Glu Tyr Arg Val Pro Gly

	165		170		175										
Arg	Gln	Pro	Arg	Thr	Pro	Glu	Arg	Gln	Lys	Pro	Cys	Ala	Gln	Glu	Val
	180		185		190										
Pro	Gly	Arg	Ala	Phe	Gly	Asn	Ala	Ser	Asp	Leu	Lys	Ala	Ala	Ser	Gly
	195		200		205										
Gly	Arg	Asp	Arg	Arg	Met	Gly	Ala	Ala	Trp	Gln	Glu	Pro	His	Arg	Leu
	210		215		220										
Leu	Gly	Gly	Gln	Glu	Pro	Ser	Thr	Trp	Asp	Glu	Leu	Gly	Glu	Ala	Leu
225			230		235										
His	Ala	Gly	Glu	Lys	Ser	Phe	Glu	Cys	Arg	Ala	Cys	Ser	Lys	Val	Phe
	245		250		255										
Val	Lys	Ser	Ser	Asp	Leu	Leu	Lys	His	Leu	Arg	Thr	His	Thr	Gly	Glu
	260		265		270										
Arg	Pro	Tyr	Glu	Cys	Thr	Gln	Cys	Gly	Lys	Ala	Phe	Ser	Gln	Thr	Ser
	275		280		285										
His	Leu	Thr	Gln	His	Gln	Arg	Ile	His	Ser	Gly	Glu	Thr	Pro	Tyr	Ala
	290		295		300										
Cys	Pro	Val	Cys	Gly	Lys	Ala	Phe	Arg	His	Ser	Ser	Ser	Leu	Val	Arg
305			310		315										
His	Gln	Arg	Ile	His	Thr	Ala	Glu	Lys	Ser	Phe	Arg	Cys	Ser	Glu	Cys
	325		330		335										
Gly	Lys	Ala	Phe	Ser	His	Gly	Ser	Asn	Leu	Ser	Gln	His	Arg	Lys	Ile
	340		345		350										
His	Ala	Gly	Gly	Arg	Pro	Tyr	Ala	Cys	Ala	Gln	Cys	Gly	Arg	Arg	Phe
	355		360		365										
Cys	Arg	Asn	Ser	His	Leu	Ile	Gln	His	Glu	Arg	Thr	His	Thr	Gly	Glu
	370		375		380										
Lys	Pro	Phe	Val	Cys	Ala	Leu	Arg	Gly	Ala	Ala	Phe	Ser	Gln	Gly	Ser
385			390		395										
Ser	Leu	Phe	Leu	His	Gln	Arg	Val	His	Thr	Gly	Glu	Lys	Pro	Phe	Ala
	405		410		415										
Cys	Ala	Gln	Cys	Gly	Arg	Ser	Phe	Ser	Arg	Ser	Ser	Asn	Leu	Thr	Gln
	420		425		430										
His	Gln	Leu	Leu	His	Thr	Gly	Glu	Arg	Pro	Phe	Arg	Cys	Val	Asp	Cys
	435		440		445										
Gly	Lys	Gly	Phe	Ala	Lys	Gly	Ala	Val	Leu	Leu	Ser	His	Arg	Arg	Ile

450 455 460
 His Thr Gly Glu Lys Pro Phe Val Cys Thr Gln Cys Gly Arg Ala Phe
 465 470 475 480
 Arg Glu Arg Pro Ala Leu Leu His His Gln Arg Ile His Thr Thr Glu
 485 490 495
 Lys Thr Asn Ala Ala Ala Pro Asp Cys Thr Pro Gly Pro Gly Phe Leu
 500 505 510
 Gln Gly His His Arg Lys Val Arg Arg Gly Gly Lys Pro Ser Pro Val
 515 520 525
 Leu Lys Pro Ala Lys Val
 530

<210> 4908

<211> 1300

<212> PRT

<213> Homo sapiens

<400> 4908

Met Pro Pro Asp Val Ile Arg Asp Ile Leu Glu Gly Val Leu Arg Leu
 1 5 10 15
 Met Gly Ile Phe Asp Thr Ser Trp Val Ser Met Lys Ser Phe Leu Ala
 20 25 30
 Lys Arg Gly Val Arg Glu Asp Ile Ala Thr Phe Asp Ala Arg Asn Ile
 35 40 45
 Ser Lys Glu Ile Arg Glu Ser Val Glu Glu Leu Leu Phe Lys Asn Lys
 50 55 60
 Gly Ser Phe Asp Pro Lys Asn Ala Lys Arg Ala Ser Thr Ala Ala Ala
 65 70 75 80
 Pro Leu Ala Ala Trp Val Lys Ala Asn Ile Gln Tyr Ser His Val Leu
 85 90 95
 Glu Arg Ile His Pro Leu Glu Thr Glu Gln Ala Gly Leu Glu Ser Asn
 100 105 110
 Leu Lys Lys Thr Glu Asp Arg Lys Arg Lys Leu Glu Glu Leu Leu Asn
 115 120 125
 Ser Val Gly Gln Lys Val Ser Glu Leu Lys Glu Lys Phe Gln Ser Arg

130	135	140	
Thr Ser Glu Ala Ala Lys	Leu Glu Ala Glu Val	Ser Lys Ala Gln Glu	
145	150	155	160
Thr Ile Lys Ala Ala Glu	Val Leu Ile Asn Gln	Leu Asp Arg Glu His	
	165	170	175
Lys Arg Trp Asn Ala Gln	Val Val Glu Ile Thr	Glu Glu Leu Ala Thr	
	180	185	190
Leu Pro Lys Arg Ala Gln	Leu Ala Ala Ala Phe	Ile Thr Tyr Leu Ser	
	195	200	205
Ala Ala Pro Glu Ser Leu	Arg Lys Thr Cys Leu	Glu Glu Trp Thr Lys	
	210	215	220
Ser Ala Gly Leu Glu Lys	Phe Asp Leu Arg Arg	Phe Leu Cys Thr Glu	
225	230	235	240
Ser Glu Gln Leu Ile Trp	Lys Ser Glu Gly Leu	Pro Ser Asp Asp Leu	
	245	250	255
Ser Ile Glu Asn Ala Leu	Val Ile Leu Gln Ser	Arg Val Cys Pro Phe	
	260	265	270
Leu Ile Asp Pro Ser Ser	Gln Ala Thr Glu Trp	Leu Lys Thr His Leu	
	275	280	285
Lys Asp Ser Arg Leu Glu	Val Ile Asn Gln Gln	Asp Ser Asn Phe Ile	
	290	295	300
Thr Ala Leu Glu Leu Ala	Val Arg Phe Gly Lys	Thr Leu Ile Ile Gln	
305	310	315	320
Glu Met Asp Gly Val Glu	Pro Val Leu Tyr Pro	Leu Leu Arg Arg Asp	
	325	330	335
Leu Val Ala Gln Gly Pro	Arg Tyr Val Val Gln	Ile Gly Asp Lys Ile	
	340	345	350
Ile Asp Tyr Asn Glu Glu	Phe Arg Leu Phe Leu	Ser Thr Arg Asn Pro	
	355	360	365
Asn Pro Phe Ile Pro Pro	Asp Ala Ala Ser Ile	Val Thr Glu Val Asn	
	370	375	380
Phe Thr Thr Thr Arg Ser	Gly Leu Arg Gly Gln	Leu Leu Ala Leu Thr	
385	390	395	400
Ile Gln His Glu Lys Pro	Asp Leu Glu Glu Gln	Lys Thr Lys Leu Leu	
	405	410	415
Gln Gln Glu Glu Asp Lys	Lys Ile Gln Leu Ala	Lys Leu Glu Glu Ser	

420	425	430
Leu Leu Glu Thr Leu Ala Thr Ser Gln Gly Asn Ile Leu Glu Asn Lys		
435	440	445
Asp Leu Ile Glu Ser Leu Asn Gln Thr Lys Ala Ser Ser Ala Leu Ile		
450	455	460
Gln Glu Ser Leu Lys Glu Ser Tyr Lys Leu Gln Ile Ser Leu Asp Gln		
465	470	475
Glu Arg Asp Ala Tyr Leu Pro Leu Ala Glu Ser Ala Ser Lys Met Tyr		
485	490	495
Phe Ile Ile Ser Asp Leu Ser Lys Ile Asn Asn Met Tyr Arg Phe Ser		
500	505	510
Leu Ala Ala Phe Leu Arg Leu Phe Gln Arg Ala Leu Gln Asn Lys Gln		
515	520	525
Asp Ser Glu Asn Thr Glu Gln Arg Ile Gln Ser Leu Ile Ser Ser Leu		
530	535	540
Gln His Met Val Tyr Glu Tyr Ile Cys Arg Cys Leu Phe Lys Ala Asp		
545	550	555
Gln Leu Met Phe Ala Leu His Phe Val Arg Gly Met His Pro Glu Leu		
565	570	575
Phe Gln Glu Asn Glu Trp Asp Thr Phe Thr Gly Val Val Val Gly Asp		
580	585	590
Met Leu Arg Lys Ala Asp Ser Gln Gln Lys Ile Arg Asp Gln Leu Pro		
595	600	605
Ser Trp Ile Asp Gln Glu Arg Ser Trp Ala Val Ala Thr Leu Lys Ile		
610	615	620
Ala Leu Pro Ser Leu Tyr Gln Thr Leu Cys Phe Glu Asp Ala Ala Leu		
625	630	635
Trp Arg Thr Tyr Tyr Asn Asn Ser Met Cys Glu Gln Glu Phe Pro Ser		
645	650	655
Ile Leu Ala Lys Lys Val Ser Leu Phe Gln Gln Ile Leu Val Val Gln		
660	665	670
Ala Leu Arg Pro Asp Arg Leu Gln Ser Ala Met Ala Leu Phe Ala Cys		
675	680	685
Lys Thr Leu Gly Leu Lys Glu Val Ser Pro Leu Pro Leu Asn Leu Lys		
690	695	700
Arg Leu Tyr Lys Glu Thr Leu Glu Ile Glu Pro Ile Leu Ile Ile Ile		

705	710	715	720
Ser Pro Gly Ala Asp	Pro Ser Gln Glu Leu	Gln Glu Leu Ala	Asn Ala
725	730	735	
Glu Arg Ser Gly Glu Cys Tyr His	Gln Val Ala Met Gly	Gln Gly Gln	
740	745	750	
Ala Asp Leu Ala Ile Gln Met	Leu Lys Glu Cys Ala Arg	Asn Gly Asp	
755	760	765	
Trp Leu Cys Leu Lys Asn Leu His	Leu Val Val Ser Trp	Leu Pro Val	
770	775	780	
Leu Glu Lys Glu Leu Asn Thr	Leu Gln Pro Lys Asp Thr	Phe Arg Leu	
785	790	795	800
Trp Leu Thr Ala Glu Val His	Pro Asn Phe Thr Pro	Ile Leu Leu Gln	
805	810	815	
Ser Ser Leu Lys Ile Thr Tyr Glu	Ser Pro Pro Gly Leu	Lys Lys Asn	
820	825	830	
Leu Met Arg Thr Tyr Glu Ser	Trp Thr Pro Glu Gln	Ile Ser Lys Lys	
835	840	845	
Asp Asn Thr His Arg Ala His	Ala Leu Phe Ser Leu	Ala Trp Phe His	
850	855	860	
Ala Ala Cys Gln Glu Arg Arg	Asn Tyr Ile Pro Gln	Gly Trp Thr Lys	
865	870	875	880
Phe Tyr Glu Phe Ser Leu Ser	Asp Leu Arg Ala Gly	Tyr Asn Ile Ile	
885	890	895	
Asp Arg Leu Phe Asp Gly Ala	Lys Asp Val Gln Trp	Glu Phe Val His	
900	905	910	
Gly Leu Leu Glu Asn Ala Ile	Tyr Gly Gly Arg Ile	Asp Asn Tyr Phe	
915	920	925	
Asp Leu Arg Val Leu Gln Ser	Tyr Leu Lys Gln Phe	Phe Asn Ser Ser	
930	935	940	
Val Ile Asp Val Phe Asn Gln	Arg Asn Lys Lys Ser	Ile Phe Pro Tyr	
945	950	955	960
Ser Val Ser Leu Pro Gln Ser	Cys Ser Ile Leu Asp	Tyr Arg Ala Val	
965	970	975	
Ile Glu Lys Ile Pro Glu Asp	Asp Lys Pro Ser Phe	Phe Gly Leu Pro	
980	985	990	
Ala Asn Ile Ala Arg Ser	Ser Gln Arg Met Ile	Ser Ser Gln Val Ile	

995	1000	1005
Ser Gln Leu Arg Ile Leu Gly Arg Ser Ile Thr Ala Gly Ser Lys Phe		
1010	1015	1020
Asp Arg Glu Ile Trp Ser Asn Glu Leu Ser Pro Val Leu Asn Leu Trp		
1025	1030	1035
Lys Lys Leu Asn Gln Asn Ser Asn Leu Ile His Gln Lys Val Pro Pro		
1045	1050	1055
Pro Asn Asp Arg Gln Gly Ser Pro Ile Leu Ser Phe Ile Ile Leu Glu		
1060	1065	1070
Gln Phe Asn Ala Ile Arg Leu Val Gln Ser Val His Gln Ser Leu Ala		
1075	1080	1085
Ala Leu Ser Lys Val Ile Arg Gly Thr Thr Leu Leu Ser Ser Glu Val		
1090	1095	1100
Gln Lys Leu Ala Ser Ala Leu Leu Asn Gln Lys Cys Pro Leu Ala Trp		
1105	1110	1115
Gln Ser Lys Trp Glu Gly Pro Glu Asp Pro Leu Gln Tyr Leu Arg Gly		
1125	1130	1135
Leu Val Ala Arg Ala Leu Ala Ile Gln Asn Trp Val Asp Lys Ala Glu		
1140	1145	1150
Lys Gln Ala Leu Leu Ser Glu Thr Leu Asp Leu Ser Glu Leu Phe His		
1155	1160	1165
Pro Asp Thr Phe Leu Asn Ala Leu Arg Gln Glu Thr Ala Arg Ala Val		
1170	1175	1180
Gly Arg Ser Val Asp Ser Leu Lys Phe Val Ala Ser Trp Lys Gly Arg		
1185	1190	1195
Leu Gln Glu Ala Lys Leu Gln Ile Lys Ile Ser Gly Leu Leu Leu Glu		
1205	1210	1215
Gly Cys Ser Phe Asp Gly Asn Gln Leu Ser Glu Asn Gln Leu Asp Ser		
1220	1225	1230
Pro Ser Val Ser Ser Val Leu Pro Cys Phe Met Gly Trp Ile Pro Gln		
1235	1240	1245
Asp Ala Cys Gly Pro Tyr Ser Pro Asp Glu Cys Ile Ser Leu Pro Val		
1250	1255	1260
Tyr Thr Ser Ala Glu Arg Asp Arg Val Val Thr Asn Ile Asp Val Pro		
1265	1270	1275
Cys Gly Gly Asn Gln Asp Gln Trp Ile Gln Cys Gly Ala Ala Leu Phe		

195	200	205	
Cys Val Met Met Asn Asp Val	Leu Glu Thr Leu Pro His Ile Glu Val		
210	215	220	
Lys Ile Glu Gly Lys Ser Glu Ser	Pro Gln Glu Glu Met Thr Val Val		
225	230	235	240
Ile Asp Gln Leu Glu Val Cys Asp Ser	Leu Ile Pro Ser Thr Ser Ser		
	245	250	255
Met Thr His Val Ser Asp Thr Glu His	Lys Glu Ser Glu Thr Ala Val		
	260	265	270
Glu Thr Ser Thr Pro Lys Ile Lys Thr	Gly Ser Ser Ser Leu Glu Gly		
	275	280	285
Gln Phe Pro Asn Glu Gly Ile Ala Ile	Asp Met Glu Leu Gln Ser Asp		
	290	295	300
Pro Glu Glu Gln Leu Ser Glu Asn Ala	Cys Ile Ser Glu Thr Ser Phe		
305	310	315	320
Ser Ser Glu Ser Pro Glu Gly Ala Cys	Thr Ser Leu Pro Ser Pro Gly		
	325	330	335
Gly Glu Thr Gln Ser Thr Ser Glu Glu	Ser Cys Thr Pro Ala Ser Leu		
	340	345	350
Glu Thr Thr Phe Cys Ser Glu Val Ser	Ser Thr Glu Asn Thr Asp Lys		
	355	360	365
Tyr Asn Gln Arg Asn Ser Thr Asp Glu	Asn Phe His Ala Ser Leu Met		
	370	375	380
Ser Glu Ile Ser Pro Ile Ser Thr Ser	Pro Glu Ile Ser Glu Ala Ser		
385	390	395	400
Leu Met Ser Asn Leu Pro Leu Thr Ser	Glu Ala Ser Pro Val Ser Asn		
	405	410	415
Leu Pro Leu Thr Ser Glu Thr Ser Pro	Met Ser Asp Leu Pro Leu Thr		
	420	425	430
Ser Lys Thr Ser Ser Val Ser Ser Met	Leu Leu Thr Ser Glu Thr Thr		
	435	440	445
Phe Val Ser Ser Leu Pro Leu Pro Ser	Glu Thr Ser Pro Ile Ser Asn		
	450	455	460
Ser Ser Ile Asn Glu Arg Met Ala His	Gln Gln Arg Lys Ser Pro Ser		
465	470	475	480

Val Ser Glu Glu Pro Leu Ser Pro Gln Lys Asp Glu Ser Ser Ala Thr			
	485	490	495
Ala Lys Pro Leu Gly Glu Asn Leu Thr Ser Gln Gln Lys Asn Leu Ser			
	500	505	510
Asn Thr Pro Glu Pro Ile Ile Met Ser Ser Ser Ser Ile Ala Pro Glu			
	515	520	525
Ala Phe Pro Ser Glu Asp Leu His Asn Lys Thr Leu Ser Gln Gln Thr			
	530	535	540
Cys Lys Ser His Val Asp Thr Glu Lys Pro Tyr Pro Ala Ser Ile Pro			
545	550	555	560
Glu Leu Ala Ser Thr Glu Met Ile Lys Val Lys Asn His Ser Val Leu			
	565	570	575
Gln Arg Thr Glu Lys Lys Val Leu Pro Ser Pro Leu Glu Leu Ser Val			
	580	585	590
Phe Ser Glu Gly Thr Asp Asn Lys Gly Asn Glu Leu Pro Ser Ala Lys			
	595	600	605
Leu Gln Asp Lys Gln Tyr Ile Ser Ser Val Asp Lys Ala Pro Phe Ser			
	610	615	620
Glu Gly Ser Arg Asn Lys Thr His Lys Gln Gly Ser Thr Gln Ser Arg			
625	630	635	640
Leu Glu Thr Ser His Thr Ser Lys Ser Ser Glu Pro Ser Lys Ser Pro			
	645	650	655
Asp Gly Ile Arg Asn Glu Ser Arg Asp Ser Glu Ile Ser Lys Arg Lys			
	660	665	670
Thr Ala Glu Gln His Ser Phe Gly Ile Cys Lys Glu Lys Arg Ala Arg			
	675	680	685
Ile Glu Asp Asp Gln Ser Thr Arg Asn Ile Ser Ser Ser Ser Pro Pro			
	690	695	700
Glu Lys Glu Gln Pro Pro Arg Glu Glu Pro Arg Val Pro Pro Leu Lys			
705	710	715	720
Ile Gln Leu Ser Lys Ile Gly Pro Pro Phe Ile Ile Lys Ser Gln Pro			
	725	730	735
Val Ser Lys Pro Glu Ser Arg Ala Ser Thr Ser Thr Ser Val Ser Gly			
	740	745	750
Gly Arg Asn Thr Gly Ala Arg Thr Leu Ala Asp Ile Lys Ala Arg Ala			
	755	760	765

Gln Gln Ala Arg Ala Gln Arg Glu Ala Ala Ala Ala Ala Val Ala
 770 775 780
 Ala Ala Ala Ser Ile Val Ser Gly Ala Met Gly Ser Pro Gly Glu Gly
 785 790 795 800
 Gly Lys Thr Arg Thr Leu Ala His Ile Lys Glu Gln Thr Lys Ala Lys
 805 810 815
 Leu Phe Ala Lys His Gln Ala Arg Ala His Leu Phe Gln Thr Ser Lys
 820 825 830
 Glu Thr Arg Leu Pro Pro Pro Leu Ser Ser Lys Glu Gly Pro Pro Asn
 835 840 845
 Leu Glu Val Ser Ser Thr Pro Glu Thr Lys Met Glu Gly Ser Thr Gly
 850 855 860
 Val Ile Ile Val Asn Pro Asn Cys Arg Ser Pro Ser Asn Lys Ser Ala
 865 870 875 880
 His Leu Arg Glu Thr Thr Thr Val Leu Gln Gln Ser Leu Asn Pro Ser
 885 890 895
 Lys Leu Pro Glu Thr Ala Thr Asp Leu Ser Val His Ser Ser Asp Glu
 900 905 910
 Asn Ile Pro Val Ser His Leu Ser Glu Lys Ile Val Ser Ser Thr Ser
 915 920 925
 Ser Glu Asn Ser Ser Val Pro Met Leu Phe Asn Lys Asn Ser Val Pro
 930 935 940

<210> 4910

<211> 1161

<212> PRT

<213> Homo sapiens

<400> 4910

Met Cys Ser Thr Pro Gly Met Pro Ala Pro Gly Ala Ser Leu Ala Leu
 1 5 10 15
 Arg Val Ser Phe Val Asp Val His Pro Asp Val Ile Pro Val Gln Leu
 20 25 30
 Trp Gly Leu Val Gly Glu Arg Arg Gly Glu Tyr Leu Arg Leu Ser Arg
 35 40 45

Glu Ile Gln Glu Ala Ala Ala Thr Arg Gly Gln Trp Ala Leu Gly Ser
 50 55 60
 Ala Ser Ala Ser Pro Gly Glu Leu Cys Leu Val Gln Val Gly Leu Leu
 65 70 75 80
 Trp His Arg Cys Arg Val Val Ser Arg Gln Ala Gln Glu Ser Arg Val
 85 90 95
 Phe Leu Leu Asp Glu Gly Arg Thr Ile Thr Ala Gly Ala Gly Ser Leu
 100 105 110
 Ala Pro Gly Arg Arg Glu Phe Phe Asn Leu Pro Ser Glu Val Leu Gly
 115 120 125
 Cys Val Leu Ala Gly Leu Val Pro Ala Gly Cys Gly Ala Gly Ser Gly
 130 135 140
 Glu Pro Pro Gln His Trp Pro Ala Asp Ala Val Asp Phe Leu Ser Asn
 145 150 155 160
 Leu Gln Gly Lys Glu Val His Gly Cys Val Leu Asp Val Leu Leu Leu
 165 170 175
 His Arg Leu Val Leu Leu Glu Val Pro Asp Val Phe Gln Gln Met Arg
 180 185 190
 Glu Leu Gly Leu Ala Arg Arg Val Pro Asp Ser Leu Phe Arg Ser Leu
 195 200 205
 Leu Glu Arg Tyr Leu Thr Ala Ala Thr Ala Ser Val Gly Ser Gly Val
 210 215 220
 Pro Val Leu Ser Arg Val Pro Leu Lys Gln Lys Gln Pro Gly Leu Asp
 225 230 235 240
 Tyr Phe Tyr Pro Gln Leu Gln Leu Gly Val Thr Glu Ala Val Val Ile
 245 250 255
 Thr Gln Val Cys His Pro His Arg Ile His Cys Gln Leu Arg Ser Val
 260 265 270
 Ser Gln Glu Ile His Arg Leu Ser Glu Ser Met Ala Gln Val Tyr Arg
 275 280 285
 Gly Ser Thr Gly Thr Gly Asp Glu Asn Ser Thr Ser Ala Thr Trp Glu
 290 295 300
 Glu Arg Glu Glu Ser Pro Asp Lys Pro Gly Ser Pro Cys Ala Ser Cys
 305 310 315 320
 Gly Leu Asp Gly His Trp Tyr Arg Ala Leu Leu Leu Glu Thr Phe Arg
 325 330 335

Pro Gln Arg Cys Ala Gln Val Leu His Val Asp Tyr Gly Arg Lys Glu
 340 345 350
 Leu Val Ser Cys Ser Ser Leu Arg Tyr Leu Leu Pro Glu Tyr Phe Arg
 355 360 365
 Met Pro Val Val Thr Tyr Pro Cys Ala Leu Tyr Gly Leu Trp Asp Gly
 370 375 380
 Gly Arg Gly Trp Ser Arg Ser Gln Val Gly Asp Leu Lys Thr Leu Ile
 385 390 395 400
 Leu Gly Lys Ala Val Asn Ala Lys Ile Glu Phe Tyr Cys Ser Phe Glu
 405 410 415
 His Val Tyr Tyr Val Ser Leu Tyr Gly Glu Asp Gly Ile Asn Leu Asn
 420 425 430
 Arg Val Phe Gly Val Gln Ser Cys Cys Leu Ala Asp Arg Val Leu Gln
 435 440 445
 Ser Gln Ala Thr Glu Glu Glu Glu Pro Glu Thr Ser Gln Ser Gln Ser
 450 455 460
 Pro Ala Glu Glu Val Asp Glu Glu Ile Ser Leu Pro Ala Leu Arg Ser
 465 470 475 480
 Ile Arg Leu Lys Met Asn Ala Phe Tyr Asp Ala Gln Val Glu Phe Val
 485 490 495
 Lys Asn Pro Ser Glu Phe Trp Ile Arg Leu Arg Lys His Asn Val Thr
 500 505 510
 Phe Ser Lys Leu Met Arg Arg Met Cys Gly Phe Tyr Ser Ser Ala Ser
 515 520 525
 Lys Leu Asp Gly Val Val Leu Lys Pro Glu Pro Asp Asp Leu Cys Cys
 530 535 540
 Val Lys Trp Lys Glu Asn Gly Tyr Tyr Arg Ala Ile Val Thr Lys Leu
 545 550 555 560
 Asp Asp Lys Ser Val Asp Val Phe Leu Val Asp Arg Gly Asn Ser Glu
 565 570 575
 Asn Val Asp Trp Tyr Asp Val Arg Met Leu Leu Pro Gln Phe Arg Gln
 580 585 590
 Leu Pro Ile Leu Ala Val Lys Cys Thr Leu Ala Asp Ile Trp Pro Leu
 595 600 605
 Gly Lys Thr Trp Ser Gln Glu Ala Val Ser Phe Phe Lys Lys Thr Val
 610 615 620

Leu His Lys Glu Leu Val Ile His Ile Leu Asp Lys Gln Asp His Gln
 625 630 635 640
 Tyr Val Ile Glu Ile Leu Asp Glu Ser Arg Thr Gly Glu Glu Asn Ile
 645 650 655
 Ser Lys Val Ile Ala Gln Ala Gly Tyr Ala Lys Tyr Gln Glu Phe Glu
 660 665 670
 Thr Lys Glu Asn Ile Leu Val Asn Ala His Ser Pro Gly His Val Ser
 675 680 685
 Asn His Phe Thr Thr Glu Ser Asn Lys Ile Pro Phe Ala Lys Thr Gly
 690 695 700
 Glu Gly Glu Gln Lys Ala Lys Arg Glu Asn Lys Thr Thr Ser Val Ser
 705 710 715 720
 Lys Ala Leu Ser Asp Thr Thr Val Val Thr Asn Gly Ser Thr Glu Leu
 725 730 735
 Val Val Gln Glu Lys Val Lys Arg Ala Ser Val Tyr Phe Pro Leu Met
 740 745 750
 Gln Asn Cys Leu Glu Ile Lys Pro Gly Ser Ser Ser Lys Gly Glu Leu
 755 760 765
 Glu Val Gly Ser Thr Val Glu Val Arg Val Ser Tyr Val Glu Asn Pro
 770 775 780
 Gly Tyr Phe Trp Cys Gln Leu Thr Arg Asn Ile Gln Gly Leu Lys Thr
 785 790 795 800
 Leu Met Ser Asp Ile Gln Tyr Tyr Cys Lys Asn Thr Ala Ala Pro His
 805 810 815
 Gln Arg Asn Thr Leu Ala Cys Leu Ala Lys Arg Thr Val Asn Arg Gln
 820 825 830
 Trp Ser Arg Ala Leu Ile Ser Gly Ile Gln Ser Val Glu His Val Asn
 835 840 845
 Val Thr Phe Val Asp Tyr Gly Asp Arg Glu Met Val Ser Val Lys Asn
 850 855 860
 Ile Tyr Ser Ile Ser Glu Glu Phe Leu Lys Val Lys Ala Gln Ala Phe
 865 870 875 880
 Arg Cys Ser Leu Tyr Asn Leu Ile Gln Pro Val Gly Gln Asn Pro Phe
 885 890 895
 Val Trp Asp Val Lys Ala Ile Gln Ala Phe Asn Glu Phe Ile Asp Asn
 900 905 910

Ala Trp Gln Lys Asn Leu Glu Leu Lys Cys Thr Ile Phe Ala Leu Ala
 915 920 925
 Ser Ile Asn Glu Glu Leu Phe Asn Ile Val Asp Leu Leu Thr Pro Phe
 930 935 940
 Gln Ser Ala Cys His Phe Leu Val Glu Lys Arg Leu Ala Arg Pro Val
 945 950 955 960
 Lys Leu Gln Lys Pro Leu Glu Ser Ser Val Gln Leu His Ser Tyr Phe
 965 970 975
 Tyr Ser Thr His Asp Met Lys Ile Gly Ser Glu Glu Leu Val Tyr Ile
 980 985 990
 Thr His Ile Asp Asp Pro Trp Thr Phe Tyr Cys Gln Leu Ala Arg Asn
 995 1000 1005
 Ala Asn Ile Leu Glu Gln Leu Ser Cys Ser Ile Thr Gln Leu Ser Lys
 1010 1015 1020
 Val Leu Leu Asn Leu Lys Thr Ser Pro Leu Asn Pro Gly Thr Leu Cys
 1025 1030 1035 1040
 Leu Ala Lys Tyr Thr Asp Gly Asn Trp Tyr Arg Gly Ile Val Ile Glu
 1045 1050 1055
 Lys Glu Pro Lys Lys Val Phe Phe Val Asp Phe Gly Asn Ile Tyr Val
 1060 1065 1070
 Val Thr Ser Asp Asp Leu Leu Pro Ile Pro Ser Asp Ala Tyr Asp Val
 1075 1080 1085
 Leu Leu Leu Pro Met Gln Ala Val Arg Cys Ser Leu Ser Asp Ile Pro
 1090 1095 1100
 Asp His Ile Pro Glu Glu Val Val Val Trp Phe Gln Glu Thr Ile Leu
 1105 1110 1115 1120
 Asp Lys Ser Leu Lys Ala Leu Val Val Ala Lys Asp Pro Asp Gly Thr
 1125 1130 1135
 Leu Ile Ile Glu Leu Tyr Gly Asp Asn Ile Gln Ile Ser Ala Ser Ile
 1140 1145 1150
 Asn Lys Lys Leu Gly Leu Leu Ser Tyr
 1155 1160

<210> 4911

<211> 762

<212> PRT

<213> Homo sapiens

<400> 4911

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Met Gly Asp Leu Lys Ser Gly Phe Glu Glu Val Asp Gly Val Arg Leu
  1              5              10              15
Gly Tyr Leu Ile Ile Lys Gly Lys Gln Met Phe Ala Leu Ser Gln Val
      20              25              30
Phe Thr Asp Leu Leu Lys Asn Ile Pro Arg Thr Thr Val His Lys Arg
      35              40              45
Met Asp His Leu Lys Val Lys Lys His His Cys Asp Leu Glu Glu Leu
      50              55              60
Arg Lys Leu Lys Ala Ile Asn Ser Ile Ala Phe His Ala Ala Lys Cys
      65              70              75              80
Thr Leu Ile Ser Arg Glu Asp Val Glu Ala Leu Tyr Thr Ser Cys Lys
      85              90              95
Thr Glu Arg Val Leu Lys Thr Lys Arg Arg Arg Val Gly Arg Ala Leu
      100             105             110
Ala Thr Lys Ala Pro Pro Pro Glu Arg Ala Ala Ala Ala Ser Pro Arg
      115             120             125
Pro Gly Phe Trp Lys Asp Lys His Gln Leu Trp Arg Gly Leu Ser Gly
      130             135             140
Ala Ala Arg Pro Leu Pro Ile Ser Ala Gln Ser Gln Arg Pro Gly Ala
      145             150             155             160
Ala Ala Ala Arg Pro Ala Ala His Leu Pro Gln Ile Phe Ser Lys Tyr
      165             170             175
Pro Gly Ser His Tyr Pro Glu Ile Val Arg Ser Pro Cys Lys Pro Pro
      180             185             190
Leu Asn Tyr Glu Thr Ala Pro Leu Gln Gly Asn Tyr Val Ala Phe Pro
      195             200             205
Ser Asp Pro Ala Tyr Phe Arg Ser Leu Leu Cys Ser Lys His Pro Ala
      210             215             220
Ala Ala Ala Ala Gly Ala Thr Cys Leu Glu Arg Phe His Leu Val Asn
      225             230             235             240
Gly Phe Cys Pro Pro Pro His His His His His His His His His
      245             250             255

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His His His His His Arg Ala Gln Pro Pro Gln Gln Ser His His Pro
 260 265 270
 Pro His His His Arg Pro Gln Pro His Leu Gly Ser Phe Pro Glu Ser
 275 280 285
 Cys Ser Ser Asp Ser Glu Ser Ser Ser Tyr Ser Asp His Ala Ala Asn
 290 295 300
 Asp Ser Asp Phe Gly Ser Ser Leu Ser Ser Ser Ser Asn Ser Val Ser
 305 310 315 320
 Ser Glu Glu Glu Glu Glu Glu Gly Glu Glu Glu Glu Glu Glu Glu
 325 330 335
 Glu Glu Glu Glu Gly Gly Ser Gly Ala Ser Asp Ser Ser Glu Val Ser
 340 345 350
 Ser Glu Glu Glu Asp Ser Ser Thr Glu Ser Asp Ser Ser Ser Gly Ser
 355 360 365
 Ser Gln Val Ser Val Gln Ser Ile Arg Phe Arg Arg Thr Ser Phe Cys
 370 375 380
 Lys Pro Pro Ser Val Gln Ala Gln Ala Asn Phe Leu Tyr His Leu Ala
 385 390 395 400
 Ser Ala Ala Ala Ala Thr Lys Pro Ala Ala Phe Glu Asp Ala Gly Arg
 405 410 415
 Leu Pro Asp Leu Lys Ser Ser Val Lys Ala Glu Ser Pro Ala Glu Trp
 420 425 430
 Asn Leu Gln Ser Trp Ala Pro Lys Ala Ser Pro Val Tyr Cys Pro Ala
 435 440 445
 Ser Leu Gly Ser Cys Phe Ala Glu Ile Arg Asn Asp Arg Val Ser Glu
 450 455 460
 Ile Thr Phe Pro His Ser Glu Ile Ser Asn Ala Val Lys Arg Thr Asp
 465 470 475 480
 Leu Thr Ile Asn Cys Leu Ala Glu Gly Ala Ser Ser Pro Ser Pro Lys
 485 490 495
 Thr Asn Asn Ala Phe Pro Gln Gln Arg Ile Leu Arg Glu Ala Arg Lys
 500 505 510
 Cys Leu Gln Thr Thr Pro Thr Thr His Cys Ala Asp Asn Asn Thr Ile
 515 520 525
 Ala Ala Arg Phe Leu Asn Asn Asp Ser Ser Gly Ala Glu Ala Asn Ser
 530 535 540

Glu Lys Tyr Ser Lys Ile Leu His Cys Pro Glu Phe Ala Thr Asp Leu
 545 550 555 560
 Pro Ser Ser Gln Thr Asp Pro Glu Val Asn Ala Ala Gly Ala Ala Ala
 565 570 575
 Thr Lys Ala Glu Asn Pro Cys Thr Asp Thr Gly Asp Lys Thr Leu Pro
 580 585 590
 Phe Leu His Asn Ile Lys Ile Lys Val Glu Asp Ser Ser Ala Asn Glu
 595 600 605
 Glu Tyr Glu Pro His Leu Phe Thr Asn Lys Leu Lys Cys Glu Cys Asn
 610 615 620
 Asp Thr Lys Gly Glu Phe Tyr Ser Val Thr Glu Ser Lys Glu Glu Asp
 625 630 635 640
 Ala Leu Leu Thr Thr Ala Lys Glu Gly Phe Ala Cys Pro Glu Lys Glu
 645 650 655
 Thr Pro Ser Leu Asn Pro Leu Ala Gln Ser Gln Gly Leu Ser Cys Thr
 660 665 670
 Leu Gly Ser Pro Lys Pro Glu Asp Gly Glu Tyr Lys Phe Gly Ala Arg
 675 680 685
 Val Arg Lys Asn Tyr Arg Thr Leu Val Leu Gly Lys Arg Pro Val Leu
 690 695 700
 Gln Thr Pro Pro Val Lys Pro Asn Leu Lys Ser Ala Arg Ser Pro Arg
 705 710 715 720
 Pro Thr Gly Lys Thr Glu Thr Asn Glu Gly Thr Leu Asp Asp Phe Thr
 725 730 735
 Val Ile Asn Arg Arg Lys Lys Val Ala Ser Asn Val Ala Ser Ala Val
 740 745 750
 Lys Arg Pro Phe His Phe Met Ala Asn Lys
 755 760

<210> 4912

<211> 619

<212> PRT

<213> Homo sapiens

<400> 4912

Met Glu Gly Asp Ala Glu Thr Asn Val Leu Glu Cys Ala Asn Gln Arg
 1 5 10 15
 Leu Val Ile Ser Glu Thr Asp Gly Glu Ile Leu Thr Pro Gly Trp Asp
 20 25 30
 Thr Gln Asp Arg Met Gly Val Glu Ser Arg Thr Asn Ile Gln Glu Leu
 35 40 45
 Gly Asn Arg Asn Gln Arg Glu Ala Gly Gly Glu Asn Leu Pro Glu Thr
 50 55 60
 Gln Ala His Met Gly Glu Asn Gln Glu Gln Leu Arg Cys Lys Ile Asp
 65 70 75 80
 Ala Glu Thr Gln Thr Pro Glu Trp Glu Asn Gln Asp Lys Asn Gly Ser
 85 90 95
 Glu Asp Ala Val Glu Thr Gln Thr Phe Glu Lys Lys Asp Lys Lys Glu
 100 105 110
 Ala Gly Glu Glu Asp Gly Glu Glu Ile Gln Ala Gln Gly Leu Gly Lys
 115 120 125
 Gln Gly Gln Thr Gly Asp Glu Asn Gly Glu Glu Thr Gln Thr Pro Gln
 130 135 140
 Trp Glu Lys Gln Asp Gln Met Lys Gly Asp Ala Asp Val Glu Ile Gln
 145 150 155 160
 Met Glu Glu Gly Arg Asn Lys Asp Gln Val Gly Gly Gln Asp Ala Ala
 165 170 175
 Gln Thr Gln Ser Cys Gly Arg Glu Asn Val Gly Glu Val Lys Lys Glu
 180 185 190
 Asn Ser Val Glu Thr Gln Ala Leu Asp Trp Gly Lys Gln Glu Cys Val
 195 200 205
 Gly Asn Gly Asn Val Thr Glu Ile Gln Thr Pro Arg Trp Glu Lys His
 210 215 220
 Asp Gln Gly Gly Ser Lys Lys Ala Lys Lys Thr Gln Ala Ser Gly Gly
 225 230 235 240
 Glu Asn Gln Lys Gln Leu Ser His Glu Ile Gln Val Gly Trp Gly Asn
 245 250 255
 Lys Gly Leu Arg Arg Asp Glu Asp Ala Lys Glu Thr Gln Ile Ala Thr
 260 265 270
 Lys Lys Lys Leu Arg Glu Ile Arg Glu Lys Asp Trp Val Val Ile Gln
 275 280 285

Ala Leu Trp Trp Gly Asn Arg Arg Gln Val Ala Ser Glu Ile Tyr Arg			
290	295	300	
Glu Phe Glu Ile Leu Cys Trp Glu Asn Gln Asn Trp Ile Gly Gly Glu			
305	310	315	320
His Arg Ala Glu Ile Gln Ala Ser Glu Lys Arg Asp Gln Arg Lys Asp			
325	330	335	
Gly Cys Glu Asp Gly Thr Asn Ile Leu Ala Pro Glu Ala Glu Ile Gln			
340	345	350	
Glu Gln Leu Lys Gly Glu Thr Asp Val Glu Thr Gln Ser Asn Glu Pro			
355	360	365	
Leu Arg Glu Glu Asp Gly Thr Asp Ile Gln Ser Leu Gly Arg Arg Glu			
370	375	380	
Val Lys Gly Glu Asp Asp Lys Asp Thr Gln Glu Leu Gly Arg Lys Asn			
385	390	395	400
Gln Gly Gln Leu Gly Asn Glu Phe Ser Gly Lys Ile His Ile Pro Lys			
405	410	415	
Gly Lys Asn Gln Glu His Ile Arg Gly Glu Asp Gly Ala His Thr Gln			
420	425	430	
Ile Ser Glu Ser Gly Asn Trp Gly Lys Leu Thr Ser Gln Ile Asp Gly			
435	440	445	
Glu Met His Ser Ala Glu Trp Lys Lys Asp Gln Gln Ile Gly Gly Glu			
450	455	460	
Asn Gly Ala Glu Ile Gln Ile Gln Gly Lys Arg Asn Leu Arg Glu Val			
465	470	475	480
Gly Gly Glu Asp Gly Val Lys Thr Trp Ala Pro Gly Lys Glu Thr Gln			
485	490	495	
Ser Gln Phe Arg Ser Asp Leu Gly Arg Lys Ile Leu Leu Ser Glu Trp			
500	505	510	
Lys Ser Gln Lys Gln Met Gly Ser Glu Asn Gly Thr Glu Ile Gln Ala			
515	520	525	
Pro Val Glu Arg Asn Gln Arg Glu Pro Gly Gly Glu Asp Gly Val Lys			
530	535	540	
Thr Gln Arg Pro Lys Arg Glu Asn Glu Asp Gln Leu Asp Ser Glu Ile			
545	550	555	560
Gly Gly Ser His Ser Pro Gly Arg Arg Asn Trp Glu Leu Ile Gly Lys			
565	570	575	

Asp Val Ala Glu Asn Gln Ala Ser Glu Lys Arg Asn Gln Arg Glu Val
 580 585 590
 Gly Asn Glu Asp Gly Arg Met Ile Trp Arg Leu Arg Gly Lys Asn Trp
 595 600 605
 Arg Leu Arg Ala Lys Lys Gln Thr Val Lys Lys
 610 615

<210> 4913

<211> 164

<212> PRT

<213> Homo sapiens

<400> 4913

Met Asn Val Leu Val Trp Glu Asp Cys Ile Ala Glu Gln Ala Glu Val
 1 5 10 15
 Leu His Asn Asp Ser Tyr Gly Val Ile Ile Asp Cys Ser Pro Lys Gly
 20 25 30
 Met Phe Ser Leu Asn Cys Thr Ser Gln Ser Ala Cys His Gly His Thr
 35 40 45
 Met Phe Ser Trp Ser Glu Gln Asn Gly Gln Met Val Glu Met Ile Arg
 50 55 60
 Ser Met Ala Arg Val Pro Ile Ile Trp Lys His Gly Gly Ile Val Ala
 65 70 75 80
 Pro Gln Pro Gln Met Ile Trp Pro Ala Val Gly Ala Lys His Lys Asp
 85 90 95
 Leu Trp Lys Leu Leu Met Ala Leu Asn Lys Ile Lys Ile Trp Glu Arg
 100 105 110
 Ile Lys Lys His Leu Glu Gly His Ser Arg Asn Leu Asp Ile Ala Lys
 115 120 125
 Leu Lys Glu Gln Ile Phe Lys Ala Ser Gln Ala His Leu Thr Leu Met
 130 135 140
 Pro Gly Thr Gly Val Leu Glu Gly Ala Ala Asp Gly Leu Ala Ala Ile
 145 150 155 160
 Asn Pro Leu Lys

<210> 4914

<211> 236

<212> PRT

<213> Homo sapiens

<400> 4914

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Met Ser Ser Thr Glu Ser Ala Gly Arg Thr Ala Asp Lys Ser Pro Arg
 1             5             10             15
Gln Gln Val Asp Arg Leu Leu Val Gly Leu Arg Trp Arg Arg Leu Glu
      20             25             30
Glu Pro Leu Gly Phe Ile Lys Val Leu Gln Trp Leu Phe Ala Ile Phe
      35             40             45
Ala Phe Gly Ser Cys Gly Ser Tyr Ser Gly Glu Thr Gly Ala Met Val
      50             55             60
Arg Cys Asn Asn Glu Ala Lys Asp Val Ser Ser Ile Ile Val Ala Phe
      65             70             75             80
Gly Tyr Pro Phe Arg Leu His Arg Ile Gln Tyr Glu Met Pro Leu Cys
      85             90             95
Asp Glu Gly Ser Ser Ser Lys Thr Met His Leu Met Gly Asp Phe Ser
      100            105            110
Ala Pro Ala Glu Phe Phe Val Thr Leu Gly Ile Phe Ser Phe Phe Tyr
      115            120            125
Thr Met Ala Ala Leu Val Ile Tyr Leu Arg Phe His Asn Leu Tyr Thr
      130            135            140
Glu Asn Lys Arg Phe Pro Leu Val Asp Phe Cys Val Thr Val Ser Phe
      145            150            155            160
Thr Phe Phe Trp Leu Val Ala Ala Ala Ala Trp Gly Lys Gly Leu Thr
      165            170            175
Asp Val Lys Gly Ala Thr Arg Pro Ser Ser Leu Thr Ala Ala Met Ser
      180            185            190

Val Cys His Gly Glu Glu Ala Val Cys Ser Ala Gly Ala Thr Pro Ser
      195            200            205
Met Gly Leu Ala Asn Ile Ser Val Val Arg Pro Val Ala Thr Ala Gly

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210 215 220
 Ser Ser Thr Ser Pro Ala Ala Gln Ala Cys Pro Ser
 225 230 235

<210> 4915

<211> 390

<212> PRT

<213> Homo sapiens

<400> 4915

Met Cys Ile Cys His Leu Pro Cys Arg Pro Val Lys Pro Asn Ile Ile
 1 5 10 15
 Gly Glu Gln Ile Thr Ser Lys Met Gly Ala His Tyr His Cys Ile Ile
 20 25 30
 Cys Ser Ala Thr Ile Thr Arg Arg Thr Asp Met Leu Gly His Val Arg
 35 40 45
 Arg His Met Asn Lys Gly Glu Thr Lys Ser Ser Tyr Ile Ala Ala Ser
 50 55 60
 Thr Ala Lys Pro Pro Lys Glu Ile Leu Lys Glu Ala Asp Thr Asp Val
 65 70 75 80
 Gln Val Cys Pro Asn Tyr Ser Ile Pro Gln Lys Thr Asp Ser Tyr Phe
 85 90 95
 Asn Pro Lys Met Lys Leu Asn Arg Gln Leu Ile Phe Cys Thr Leu Ala
 100 105 110
 Ala Leu Ala Glu Glu Arg Lys Pro Leu Glu Cys Leu Asp Ala Phe Gly
 115 120 125
 Ala Thr Gly Ile Met Gly Leu Gln Trp Ala Lys His Leu Gly Asn Ala
 130 135 140
 Val Lys Val Thr Ile Asn Asp Leu Asn Glu Asn Ser Val Thr Leu Ile
 145 150 155 160
 Gln Glu Ser Cys His Leu Asn Lys Leu Lys Val Val Val Asp Ser Lys
 165 170 175
 Glu Lys Glu Lys Ser Asp Asp Ile Leu Glu Glu Gly Glu Lys Asn Leu
 180 185 190
 Gly Asn Ile Lys Val Thr Lys Met Asp Ala Asn Val Leu Met His Leu

195	200	205
Arg Ser Phe Asp Phe Ile His Leu Asp Pro Phe Gly Thr Ser Val Asn		
210	215	220
Tyr Leu Asp Ser Ala Phe Arg Asn Ile Arg Asn Leu Gly Ile Val Ser		
225	230	235
Val Thr Ser Thr Asp Ile Ser Ser Leu Tyr Ala Lys Ala Gln His Val		
245	250	255
Ala Arg Arg His Tyr Gly Cys Asn Ile Val Arg Thr Glu Tyr Tyr Lys		
260	265	270
Glu Leu Ala Ala Arg Ile Val Val Ala Ala Val Ala Arg Ala Ala Ala		
275	280	285
Arg Cys Asn Lys Gly Ile Glu Val Leu Phe Ala Val Ala Leu Glu His		
290	295	300
Phe Val Leu Val Val Val Arg Val Leu Arg Gly Pro Thr Ser Ala Asp		
305	310	315
Glu Thr Ala Lys Lys Ile Gln Tyr Leu Ile His Cys Gln Trp Cys Glu		
325	330	335
Glu Arg Ile Phe Gln Lys Asp Gly Asn Met Val Glu Asp Tyr Ser Ala		
340	345	350
Asn Phe Val Ile Ser Tyr Thr Gly Phe Pro Phe Val Asn Arg Gln Asp		
355	360	365
Ile Arg Lys Thr His Ile Asp Ser Cys Leu Val Thr Val Met Glu Ala		
370	375	380
Cys Leu Glu Arg Gln Gln		
385	390	

<210> 4916

<211> 619

<212> PRT

<213> Homo sapiens

<400> 4916

Met Ala Arg Leu Gln Arg Arg Ala Ser Gln Arg Arg Gln Gly Gly Thr
1 5 10 15
Trp Gly Leu Arg Val Val Gln Glu Pro Gly Gly His Leu Tyr Ile Trp

	20		25		30										
Leu	Ala	Ser	Glu	Lys	Ala	His	Glu	Arg	Gln	Arg	Ala	Val	His	Ser	Cys
	35		40		45										
Met	Ile	Leu	Leu	Lys	Phe	Leu	Asn	His	Asn	Gly	Tyr	Leu	Asp	Pro	Lys
	50		55		60										
Glu	Asp	Phe	Lys	Arg	Ile	Gly	Gln	Leu	Val	Gly	Ile	Leu	Gly	Met	Leu
65			70		75									80	
Cys	Gln	Asp	Pro	Asp	Arg	Ala	Thr	Gln	Arg	Cys	Ser	Leu	Glu	Gly	Ala
			85		90									95	
Ser	His	Leu	Tyr	Gln	Leu	Leu	Met	Cys	His	Lys	Arg	Glu	Ala	Leu	Gln
	100		105		110										
Ala	Glu	Ser	Gln	Ala	Pro	Lys	Glu	Leu	Ser	Gln	Ala	His	Ser	Asp	Gly
	115		120		125										
Ala	Pro	Leu	Trp	Asn	Ser	Arg	Asp	Gln	Lys	Ala	Thr	Pro	Leu	Gly	Pro
130			135		140										
Gln	Glu	Met	Ala	Lys	Asn	His	Ile	Phe	Gln	Leu	Cys	Ser	Phe	Gln	Val
145			150		155									160	
Ile	Lys	Asp	Ile	Met	Gln	Gln	Leu	Thr	Leu	Ala	Glu	Leu	Ser	Asp	Leu
			165		170									175	
Ile	Trp	Thr	Ala	Ile	Asp	Gly	Leu	Gly	Ser	Thr	Ser	Pro	Phe	Arg	Val
	180		185		190										
Gln	Ala	Ala	Ser	Glu	Met	Leu	Leu	Thr	Ala	Val	Gln	Glu	His	Gly	Ala
	195		200		205										
Lys	Leu	Glu	Ile	Val	Ser	Ser	Met	Ala	Gln	Ala	Ile	Arg	Leu	Arg	Leu
	210		215		220										
Cys	Ser	Val	His	Ile	Pro	Gln	Ala	Lys	Glu	Lys	Thr	Leu	His	Ala	Ile
225			230		235									240	
Thr	Leu	Leu	Ala	Arg	Ser	His	Thr	Cys	Glu	Leu	Val	Ala	Thr	Phe	Leu
			245		250									255	
Asn	Ile	Ser	Ile	Pro	Leu	Asp	Ser	His	Thr	Phe	Gln	Leu	Trp	Arg	Ala
	260		265		270										
Leu	Gly	Ala	Glu	Gln	Pro	Thr	Ser	His	Leu	Val	Leu	Thr	Thr	Leu	Leu
	275		280		285										
Ala	Cys	Leu	Gln	Glu	Arg	Pro	Leu	Pro	Thr	Gly	Ala	Ser	Asp	Ser	Ser
	290		295		300										
Pro	Cys	Pro	Lys	Glu	Lys	Thr	Tyr	Leu	Arg	Leu	Leu	Ala	Ala	Met	Asn

305	310	315	320
Met Leu His Glu Leu Gln Phe Ala Arg Glu Phe Lys Gln Ala Val Gln			
325	330	335	
Glu Gly Tyr Pro Lys Leu Phe Leu Ala Leu Leu Thr Gln Met His Tyr			
340	345	350	
Val Leu Glu Leu Asn Leu Pro Ser Glu Pro Gln Pro Lys Gln Gln Ala			
355	360	365	
Gln Glu Ala Ala Val Pro Ser Pro Gln Ser Cys Ser Thr Ser Leu Glu			
370	375	380	
Ala Leu Lys Ser Leu Leu Ser Thr Thr Gly His Trp His Asp Phe Ala			
385	390	395	400
His Leu Glu Leu Gln Gly Ser Trp Glu Leu Phe Thr Thr Ile His Thr			
405	410	415	
Tyr Pro Lys Gly Val Gly Leu Leu Ala Arg Ala Met Val Gln Asn His			
420	425	430	
Cys Arg Gln Ile Pro Ala Val Leu Arg Gln Leu Leu Pro Ser Leu Gln			
435	440	445	
Ser Pro Gln Glu Arg Glu Arg Lys Val Ala Ile Leu Ile Leu Thr Lys			
450	455	460	
Phe Leu Tyr Ser Pro Val Leu Leu Glu Val Leu Pro Lys Gln Ala Ala			
465	470	475	480
Leu Thr Val Leu Ala Gln Gly Leu His Asp Pro Ser Pro Glu Val Arg			
485	490	495	
Val Leu Ser Leu Gln Gly Leu Ser Asn Ile Leu Phe His Pro Asp Lys			
500	505	510	
Glu Arg Asp Gly Ile Arg Ala Ala Ala Met Ala Leu Phe Gly Asp Leu			
515	520	525	
Val Ala Ala Met Ala Asp Arg Glu Leu Ser Gly Leu Arg Thr Gln Val			
530	535	540	
His Gln Ser Met Val Pro Leu Leu Leu His Leu Lys Asp Gln Cys Pro			
545	550	555	560
Ala Val Ala Thr Gln Ala Lys Phe Thr Phe Tyr Arg Cys Ala Val Leu			
565	570	575	
Leu Arg Trp Arg Leu Leu His Thr Leu Phe Cys Thr Leu Ala Trp Glu			
580	585	590	
Arg Gly Leu Ser Ala Arg His Phe Leu Trp Thr Cys Leu Ala Thr Pro			

595 600 605
 Ser Ala Thr Thr Pro Arg Pro Cys Ser Arg Cys
 610 615

<210> 4917

<211> 1103

<212> PRT

<213> Homo sapiens

<400> 4917

Met His Phe Leu Ala Ala Gln Asn Gln Phe Leu His Ser Pro Phe Leu
 1 5 10 15
 Glu Arg Pro Met Asp Met Pro Tyr Met Ile Phe Asp Pro Asn Asn Pro
 20 25 30
 Leu Met Thr Gly Gln Leu Leu Gly Ser Ser Leu Thr Gln Met Pro Pro
 35 40 45
 Gln Ala Ser Ser Ser His Thr Thr Ala Pro Thr Thr Val Ala Ala Ser
 50 55 60
 Leu Lys Arg Lys Leu Asp Asp Lys Glu Asp Asn Asn Cys Ser Glu Lys
 65 70 75 80
 Glu Gly Gly Asn Ser Gly Glu Asp Gln His Arg Asp Lys Arg Leu Arg
 85 90 95
 Thr Thr Ile Thr Pro Glu Gln Leu Glu Ile Leu Tyr Glu Lys Tyr Leu
 100 105 110
 Leu Asp Ser Asn Pro Thr Arg Lys Met Leu Asp His Ile Ala Arg Glu
 115 120 125
 Val Gly Leu Lys Lys Arg Val Val Gln Val Trp Phe Gln Asn Thr Arg
 130 135 140
 Ala Arg Glu Arg Lys Gly Gln Phe Arg Ala Val Gly Pro Ala Gln Ser
 145 150 155 160
 His Lys Arg Cys Pro Phe Cys Arg Ala Leu Phe Lys Ala Lys Ser Ala
 165 170 175
 Leu Glu Ser His Ile Arg Ser Arg His Trp Asn Glu Gly Lys Gln Ala
 180 185 190

Gly Tyr Ser Leu Pro Pro Ser Pro Leu Ile Ser Thr Glu Asp Gly Gly
 195 200 205
 Glu Ser Pro Gln Lys Tyr Ile Tyr Phe Asp Tyr Pro Ser Leu Pro Leu
 210 215 220
 Thr Lys Ile Asp Leu Ser Ser Glu Asn Glu Leu Ala Ser Thr Val Ser
 225 230 235 240
 Thr Pro Val Ser Lys Thr Ala Glu Leu Ser Pro Lys Asn Leu Leu Ser
 245 250 255
 Pro Ser Ser Phe Lys Ala Glu Cys Ser Glu Asp Val Glu Asn Leu Asn
 260 265 270
 Ala Pro Pro Ala Glu Ala Gly Tyr Asp Gln Asn Lys Thr Asp Phe Asp
 275 280 285
 Glu Thr Ser Ser Ile Asn Thr Ala Ile Ser Asp Ala Thr Thr Gly Asp
 290 295 300
 Glu Gly Asn Thr Glu Met Glu Ser Thr Thr Gly Ser Ser Gly Asp Val
 305 310 315 320
 Lys Pro Ala Leu Ser Pro Lys Glu Pro Lys Thr Leu Asp Thr Leu Pro
 325 330 335
 Lys Pro Ala Thr Thr Pro Thr Thr Glu Val Cys Asp Asp Lys Phe Leu
 340 345 350
 Phe Ser Leu Thr Ser Pro Ser Ile His Phe Asn Asp Lys Asp Gly Asp
 355 360 365
 His Asp Gln Ser Phe Tyr Ile Thr Asp Asp Pro Asp Asp Asn Ala Asp
 370 375 380
 Arg Ser Glu Thr Ser Ser Ile Ala Asp Pro Ser Ser Pro Asn Pro Phe
 385 390 395 400
 Gly Ser Ser Asn Pro Phe Lys Ser Lys Ser Asn Asp Arg Pro Gly His
 405 410 415
 Lys Arg Phe Arg Thr Gln Met Ser Asn Leu Gln Leu Lys Val Leu Lys
 420 425 430
 Ala Cys Phe Ser Asp Tyr Arg Thr Pro Thr Met Gln Glu Cys Glu Met
 435 440 445
 Leu Gly Asn Glu Ile Gly Leu Pro Lys Arg Val Val Gln Val Trp Phe
 450 455 460
 Gln Asn Ala Arg Ala Lys Glu Lys Lys Phe Lys Ile Asn Ile Gly Lys
 465 470 475 480

Pro Phe Met Ile Asn Gln Gly Gly Thr Glu Gly Thr Lys Pro Glu Cys
 485 490 495
 Thr Leu Cys Gly Val Lys Tyr Ser Ala Arg Leu Ser Ile Arg Asp His
 500 505 510
 Ile Phe Ser Lys Gln His Ile Ser Lys Val Arg Glu Thr Val Gly Ser
 515 520 525
 Gln Leu Asp Arg Glu Lys Asp Tyr Leu Ala Pro Thr Thr Val Arg Gln
 530 535 540
 Leu Met Ala Gln Gln Glu Leu Asp Arg Ile Lys Lys Ala Ser Asp Val
 545 550 555 560
 Leu Gly Leu Thr Val Gln Gln Pro Gly Met Met Asp Ser Ser Ser Leu
 565 570 575
 His Gly Ile Ser Leu Pro Thr Ala Tyr Pro Gly Leu Pro Gly Leu Pro
 580 585 590
 Pro Val Leu Leu Pro Gly Met Asn Gly Pro Ser Ser Leu Pro Gly Phe
 595 600 605
 Pro Gln Asn Ser Asn Thr Leu Thr Pro Pro Gly Ala Gly Met Leu Gly
 610 615 620
 Phe Pro Thr Ser Ala Thr Ser Ser Pro Ala Leu Ser Leu Ser Ser Ala
 625 630 635 640
 Pro Thr Lys Pro Leu Leu Gln Thr Pro Pro Pro Pro Pro Pro Pro
 645 650 655
 Pro Pro Pro Pro Ser Ser Ser Leu Ser Gly Gln Gln Thr Glu Gln Gln
 660 665 670
 Asn Lys Glu Ser Glu Lys Lys Gln Thr Lys Pro Asn Lys Val Lys Lys
 675 680 685
 Ile Lys Glu Glu Glu Leu Glu Ala Thr Lys Pro Glu Lys His Pro Lys
 690 695 700
 Lys Glu Glu Lys Ile Ser Ser Ala Leu Ser Val Leu Gly Lys Val Val
 705 710 715 720
 Gly Glu Thr His Val Asp Pro Ile Gln Leu Gln Ala Leu Gln Asn Ala
 725 730 735
 Ile Ala Gly Asp Pro Ala Ser Phe Ile Gly Gly Gln Phe Leu Pro Tyr
 740 745 750
 Phe Ile Pro Gly Phe Ala Ser Tyr Phe Thr Pro Gln Leu Pro Gly Thr
 755 760 765

Val Gln Gly Gly Tyr Phe Pro Pro Val Cys Gly Met Glu Ser Leu Phe
 770 775 780
 Pro Tyr Gly Pro Thr Met Pro Gln Thr Leu Ala Gly Leu Ser Pro Gly
 785 790 795 800
 Ala Leu Leu Gln Gln Tyr Gln Gln Tyr Gln Gln Asn Leu Gln Glu Ser
 805 810 815
 Leu Gln Lys Gln Gln Lys Gln Gln Gln Glu Gln Gln Gln Lys Pro Ala
 820 825 830
 Gln Ala Lys Thr Ser Lys Val Glu Ser Asp Gln Pro Gln Asn Ser Asn
 835 840 845
 Asp Ala Ser Glu Thr Lys Glu Asp Lys Ser Thr Ala Thr Glu Ser Thr
 850 855 860
 Lys Glu Glu Pro Gln Leu Glu Ser Lys Ser Ala Asp Phe Ser Asp Thr
 865 870 875 880
 Tyr Val Val Pro Phe Val Lys Tyr Glu Phe Ile Cys Arg Lys Cys Gln
 885 890 895
 Met Met Phe Thr Asp Glu Asp Ala Ala Val Asn His Gln Lys Ser Phe
 900 905 910
 Cys Tyr Phe Gly Gln Pro Leu Ile Asp Pro Gln Glu Thr Val Leu Arg
 915 920 925
 Val Pro Val Ser Lys Tyr Gln Cys Leu Ala Cys Asp Val Ala Ile Ser
 930 935 940
 Gly Asn Glu Ala Leu Ser Gln His Leu Gln Ser Ser Leu His Lys Glu
 945 950 955 960
 Lys Thr Ile Lys Gln Ala Met Arg Asn Ala Lys Glu His Val Arg Leu
 965 970 975
 Leu Pro His Ser Val Cys Ser Pro Asn Pro Asn Thr Thr Ser Thr Ser
 980 985 990
 Gln Ser Ala Ala Ser Ser Asn Asn Thr Tyr Pro His Leu Ser Cys Phe
 995 1000 1005
 Ser Met Lys Ser Trp Pro Asn Ile Leu Phe Gln Ala Ser Ala Arg Arg
 1010 1015 1020
 Ala Ala Ser Pro Pro Ser Ser Pro Pro Ser Leu Ser Leu Pro Ser Thr
 1025 1030 1035 1040
 Val Thr Ser Ser Leu Cys Ser Thr Ser Gly Val Gln Thr Ser Leu Pro

11461

	1045	1050	1055
Thr Glu Ser Cys Ser Asp Glu Ser Asp Ser Glu Leu Ser Gln Lys Leu			
1060	1065	1070	
Glu Asp Leu Asp Asn Ser Leu Glu Val Lys Ala Lys Pro Ala Ser Gly			
1075	1080	1085	
Leu Asp Gly Asn Phe Asn Ser Ile Arg Met Asp Met Phe Ser Val			
1090	1095	1100	

<210> 4918

<211> 727

<212> PRT

<213> Homo sapiens

<400> 4918

Met Gln Gln Lys Thr Lys Leu Phe Pro Gln Ala Leu Lys Tyr Ser Ile			
1	5	10	15
Pro His Leu Gly Lys Cys Met Gln Lys Gln His Leu Asn His Tyr Asn			
20	25	30	
Phe Ala Asp His Cys Tyr Asn Arg Ile Lys Leu Lys Lys Tyr His Leu			
35	40	45	
Thr Lys Cys Leu Gln Asn Lys Pro Lys Ile Ser Glu Leu Ala Arg Asn			
50	55	60	
Ile Pro Ser Arg Ser Phe Ser Cys Lys Asp Leu Gln Pro Val Lys Gln			
65	70	75	80
Glu Asn Glu Lys Pro Leu Pro Glu Asn Thr Asp Ala Phe Glu Lys Val			
85	90	95	
Arg Thr Lys Leu Glu Thr Gln Pro Gln Glu Glu Tyr Glu Ile Ile Asn			
100	105	110	
Val Glu Val Lys His Gly Gly Phe Val Tyr Tyr Gln Glu Gly Cys Cys			
115	120	125	
Leu Val Arg Ser Lys Asp Glu Glu Ala Asp Asn Asp Asn Tyr Glu Val			
130	135	140	
Leu Phe Asn Leu Glu Glu Leu Lys Leu Asp Gln Pro Phe Ile Asp Cys			
145	150	155	160
Ile Arg Val Ala Pro Asp Glu Lys Tyr Val Ala Ala Lys Ile Arg Thr			

	165		170		175
Glu Asp Ser Glu Ala Ser Thr Cys Val Ile Ile Lys Leu Ser Asp Gln					
	180		185		190
Pro Val Met Glu Ala Ser Phe Pro Asn Val Ser Ser Phe Glu Trp Val					
	195		200		205
Lys Asp Glu Glu Asp Glu Asp Val Leu Phe Tyr Thr Phe Gln Arg Asn					
	210		215		220
Leu Arg Cys His Asp Val Tyr Arg Ala Thr Phe Gly Asp Asn Lys Arg					
225		230		235	240
Asn Glu Arg Phe Tyr Thr Glu Lys Asp Pro Ser Tyr Phe Val Phe Leu					
	245		250		255
Tyr Leu Thr Lys Asp Ser Arg Phe Leu Thr Ile Asn Ile Met Asn Lys					
	260		265		270
Thr Thr Ser Glu Val Trp Leu Ile Asp Gly Leu Ser Pro Trp Asp Pro					
	275		280		285
Pro Val Leu Ile Gln Lys Arg Ile His Gly Ile Leu Tyr Tyr Val Glu					
	290		295		300
His Arg Asp Asp Glu Leu Tyr Ile Leu Thr Asn Val Gly Glu Pro Thr					
305		310		315	320
Glu Phe Lys Leu Met Arg Thr Ala Ala Asp Thr Pro Ala Ile Met Asn					
	325		330		335
Trp Asp Leu Phe Phe Thr Met Lys Arg Asn Thr Lys Val Ile Asp Leu					
	340		345		350
Asp Met Phe Lys Asp His Cys Val Leu Phe Leu Lys His Ser Asn Leu					
	355		360		365
Leu Tyr Val Asn Val Ile Gly Leu Ala Asp Asp Ser Val Arg Ser Leu					
	370		375		380
Lys Leu Pro Pro Trp Ala Cys Gly Phe Ile Met Asp Thr Asn Ser Asp					
385		390		395	400
Pro Lys Asn Cys Pro Phe Gln Leu Cys Ser Pro Ile Arg Pro Pro Lys					
	405		410		415
Tyr Tyr Thr Tyr Lys Phe Ala Glu Gly Lys Leu Phe Glu Glu Thr Gly					
	420		425		430
His Glu Asp Pro Ile Thr Lys Thr Ser Arg Val Leu Arg Leu Glu Ala					
	435		440		445
Lys Ser Lys Asp Gly Lys Leu Val Pro Met Thr Val Phe His Lys Thr					

450	455	460	
Asp Ser Glu Asp Leu Gln Lys Lys Pro Leu Leu Val His Val Tyr Gly			
465	470	475	480
Ala Tyr Gly Met Asp Leu Lys Met Asn Phe Arg Pro Glu Arg Arg Val			
	485	490	495
Leu Val Asp Asp Gly Trp Ile Leu Ala Tyr Cys His Val Arg Gly Gly			
	500	505	510
Gly Glu Leu Gly Leu Gln Trp His Ala Asp Gly Arg Leu Thr Lys Lys			
	515	520	525
Leu Asn Gly Leu Ala Asp Leu Glu Ala Cys Ile Lys Thr Leu His Gly			
	530	535	540
Gln Gly Phe Ser Gln Pro Ser Leu Thr Thr Leu Thr Ala Phe Ser Ala			
545	550	555	560
Gly Gly Val Leu Ala Gly Ala Leu Cys Asn Ser Asn Pro Glu Leu Val			
	565	570	575
Arg Ala Val Thr Leu Glu Ala Pro Phe Leu Asp Val Leu Asn Thr Met			
	580	585	590
Met Asp Thr Thr Leu Pro Leu Thr Leu Glu Glu Leu Glu Glu Trp Gly			
	595	600	605
Asn Pro Ser Ser Asp Glu Lys His Lys Asn Tyr Ile Lys Arg Tyr Cys			
	610	615	620
Pro Tyr Gln Asn Ile Lys Pro Gln His Tyr Pro Ser Ile His Ile Thr			
625	630	635	640
Ala Tyr Glu Asn Asp Glu Arg Val Pro Leu Lys Gly Ile Val Ser Tyr			
	645	650	655
Thr Glu Lys Leu Lys Glu Ala Ile Ala Glu His Ala Lys Asp Thr Gly			
	660	665	670
Glu Gly Tyr Gln Thr Pro Asn Ile Ile Leu Asp Ile Gln Pro Gly Gly			
	675	680	685
Asn His Val Ile Glu Asp Ser His Lys Lys Ile Thr Ala Gln Ile Lys			
	690	695	700
Phe Leu Tyr Glu Glu Leu Gly Leu Asp Ser Thr Ser Val Phe Glu Asp			
705	710	715	720
Leu Lys Lys Tyr Leu Lys Phe			
	725		

<210> 4919

<211> 378

<212> PRT

<213> Homo sapiens

<400> 4919

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Met Glu Asp Arg Asp Glu Ser Glu Val Ser Asp Glu Gly Gly Ser Pro
 1             5             10             15
Ile Ser Ser Glu Gly Gln Glu Pro Arg Ala Asp Pro Glu Pro Pro Gly
      20             25             30
Leu Ala Ala Gly Leu Val Gln Gln Asp Leu Val Phe Glu Val Glu Thr
      35             40             45
Pro Ala Val Leu Pro Glu Pro Val Pro Gln Glu Asp Gly Val Asp Leu
      50             55             60
Leu Gly Leu His Ser Glu Val Gly Ala Gly Pro Ala Val Pro Pro Gln
      65             70             75             80
Ala Cys Lys Ala Pro Ser Ser Asn Thr Asp Leu Leu Ser Cys Leu Leu
      85             90             95
Gly Pro Pro Glu Ala Ala Ser Gln Gly Pro Pro Glu Asp Leu Leu Ser
      100            105            110
Glu Asp Pro Leu Leu Leu Ala Ser Pro Ala Pro Pro Leu Ser Val Gln
      115            120            125
Ser Thr Pro Arg Gly Gly Pro Pro Ala Ala Ala Asp Pro Phe Gly Pro
      130            135            140
Leu Leu Pro Ser Ser Gly Asn Asn Ser Gln Pro Cys Ser Asn Pro Asp
      145            150            155            160
Leu Phe Gly Glu Phe Leu Asn Ser Asp Ser Val Thr Val Pro Pro Ser
      165            170            175
Phe Pro Ser Ala His Ser Ala Pro Pro Pro Ser Cys Ser Ala Asp Phe
      180            185            190
Leu His Leu Gly Asp Leu Pro Gly Glu Pro Ser Lys Met Thr Ala Ser
      195            200            205
Ser Ser Asn Pro Asp Leu Leu Gly Gly Trp Ala Ala Trp Thr Glu Thr
      210            215            220
Ala Ala Ser Ala Val Ala Pro Thr Pro Ala Thr Glu Gly Ser Pro Ala

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225 230 235 240
 Gly Phe Pro Pro Gly Gly Phe Ile Pro Lys Thr Ala Thr Thr Pro Lys
 245 250 255
 Gly Ser Ser Ser Trp Gln Thr Ser Arg Pro Pro Ala Gln Gly Ala Ser
 260 265 270
 Trp Pro Pro Gln Ala Lys Pro Pro Pro Lys Ala Cys Thr Gln Pro Arg
 275 280 285
 Pro Asn Tyr Ala Ser Asn Phe Ser Val Ile Gly Ala Arg Glu Glu Arg
 290 295 300
 Gly Val Arg Ala Pro Ser Phe Gly Glu Ser Pro Thr Leu Cys Cys Cys
 305 310 315 320
 Gly Val Cys Arg Asp Leu Pro Glu Leu Ala Lys Gly Arg Thr Tyr Val
 325 330 335
 Val Phe Phe Ile Ser Glu Pro Ser Pro Gly Thr Gly Thr Ala Lys Pro
 340 345 350
 Leu Arg Glu Arg Arg Gly Phe Arg Cys Val Phe Thr Gly Leu Ser Leu
 355 360 365
 Gly Gln Ala Ser Gly Ser Leu Leu Phe Gln
 370 375

<210> 4920

<211> 168

<212> PRT

<213> Homo sapiens

<400> 4920

Met Glu Glu Ile Arg Phe Pro Arg Thr Leu Gly Pro Glu Ala Lys Ser
 1 5 10 15
 Leu Leu Ser Gly Leu Leu Lys Lys Asp Pro Lys Gln Arg Leu Gly Gly
 20 25 30
 Gly Ser Glu Asp Ala Lys Glu Ile Met Gln His Arg Phe Phe Ala Gly
 35 40 45
 Ile Val Trp Gln His Val Tyr Glu Lys Lys Val Arg Leu Leu Pro Ala
 50 55 60
 Tyr Ser Arg Ala Arg Met Leu Pro Thr Tyr Pro His Ser Arg Met His

65 70 75 80
 Val Ala Arg Ser Pro Asp Phe Pro His Thr Arg Pro His Leu Arg Ser

 85 90 95
 Leu Leu Gln Ser Trp Tyr Lys Glu Gly Leu Ala Ala Pro Thr Ser Ala
 100 105 110
 Pro Gly Ala Gln Arg Leu Trp His Cys Arg Val Pro Pro Gly Asn Trp
 115 120 125
 Pro Gly Pro His Phe Leu Leu Pro Ser Glu Val Cys His Thr Leu Ser
 130 135 140
 Phe Leu Leu Pro Ser Glu Val Cys His Thr Leu Ser Ala Ser Leu Gly
 145 150 155 160
 Val Pro Phe Pro Asp Ala Val Gln
 165

<210> 4921

<211> 219

<212> PRT

<213> Homo sapiens

<400> 4921

Met Val Gly Gly Arg Ser Cys Pro Leu Arg Gln Val Trp Val Gly Asn
 1 5 10 15
 Lys Ser Gly Leu Leu Val Gly Ala Glu Ala Gly Gly Ser Ala Ala Asp
 20 25 30
 Gly Val Thr Pro Pro Gln Glu Cys Ile Leu Ser Gly Ile Met Ser Val
 35 40 45
 Asn Gly Lys Lys Val Leu His Met Asp Arg Asn Pro Tyr Tyr Gly Gly
 50 55 60
 Glu Ser Ser Ser Ile Thr Pro Leu Glu Glu Leu Tyr Lys Arg Phe Gln
 65 70 75 80
 Leu Leu Glu Gly Pro Pro Glu Ser Met Gly Arg Gly Arg Asp Trp Asn
 85 90 95
 Val Asp Leu Ile Pro Lys Phe Leu Met Ala Asn Gly Gln Leu Val Lys
 100 105 110

Met Leu Leu Tyr Thr Glu Val Thr Arg Tyr Leu Asp Phe Lys Val Val
 115 120 125
 Glu Gly Ser Phe Val Tyr Lys Gly Gly Lys Ile Tyr Arg Val Pro Ser
 130 135 140
 Thr Glu Thr Glu Ala Leu Ala Ser Asn Leu Met Gly Met Phe Glu Lys
 145 150 155 160
 Arg Arg Phe Arg Lys Phe Leu Val Phe Val Ala Asn Phe Asp Glu Asn
 165 170 175
 Asp Pro Lys Thr Phe Glu Gly Val Asp Pro Gln Thr Thr Ser Met Arg
 180 185 190
 Asp Val Tyr Arg Lys Phe Asp Leu Gly Gln Asp Val Ile Asp Phe Thr
 195 200 205
 Gly His Ala Leu Ala Leu Tyr Arg Thr Asp Glu
 210 215

<210> 4922

<211> 419

<212> PRT

<213> Homo sapiens

<400> 4922

Met Leu Arg Cys Phe His Ser Lys Gly Val Asn Tyr Ile Asn Phe Ser
 1 5 10 15
 Ala Thr Gly Lys Leu Leu Val Ser Val Gly Val Asp Pro Glu His Thr
 20 25 30
 Ile Thr Val Trp Arg Trp Gln Glu Gly Ala Lys Val Ala Ser Arg Gly
 35 40 45
 Gly His Leu Glu Arg Ile Phe Val Val Glu Phe Arg Pro Asp Ser Asp
 50 55 60
 Thr Gln Phe Val Ser Val Gly Val Lys His Met Lys Phe Trp Thr Leu
 65 70 75 80
 Ala Gly Ser Ala Leu Leu Tyr Lys Lys Gly Val Ile Gly Ser Leu Gly
 85 90 95
 Ala Ala Lys Met Gln Thr Met Leu Ser Val Ala Phe Gly Ala Asn Asn
 100 105 110

Leu Thr Phe Thr Gly Ala Ile Asn Gly Asp Val Tyr Val Trp Lys Asp
 115 120 125
 His Phe Leu Ile Arg Leu Val Ala Lys Ala His Thr Gly Pro Val Phe
 130 135 140
 Thr Met Tyr Thr Thr Leu Arg Asp Gly Leu Ile Val Thr Gly Gly Lys
 145 150 155 160
 Glu Arg Pro Thr Lys Glu Gly Gly Ala Val Lys Leu Trp Asp Gln Glu
 165 170 175
 Met Lys Arg Cys Arg Ala Phe Gln Leu Glu Thr Gly Gln Leu Val Glu
 180 185 190
 Cys Val Arg Ser Val Cys Arg Gly Lys Gly Lys Ile Leu Val Gly Thr
 195 200 205
 Lys Asp Gly Glu Ile Ile Glu Val Gly Glu Lys Asn Ala Ala Ser Asn
 210 215 220
 Ile Leu Ile Asp Gly His Met Glu Gly Glu Ile Trp Gly Leu Ala Thr
 225 230 235 240
 His Pro Ser Lys Asp Leu Phe Ile Ser Ala Ser Asn Asp Gly Thr Ala
 245 250 255
 Arg Ile Trp Asp Leu Ala Asp Lys Lys Leu Leu Asn Lys Val Ser Leu
 260 265 270
 Gly His Ala Ala Arg Cys Ala Ala Tyr Ser Pro Asp Gly Glu Met Val
 275 280 285
 Ala Ile Gly Met Lys Asn Gly Glu Phe Val Ile Leu Leu Val Asn Ser
 290 295 300
 Leu Lys Val Trp Gly Lys Lys Arg Asp Arg Lys Ser Ala Ile Gln Asp
 305 310 315 320
 Ile Arg Ile Ser Pro Asp Asn Arg Phe Leu Ala Val Gly Ser Ser Glu
 325 330 335
 His Thr Val Asp Phe Tyr Asp Leu Thr Gln Gly Thr Asn Leu Asn Arg
 340 345 350
 Ile Gly Tyr Cys Lys Asp Ile Pro Ser Phe Val Ile Gln Met Asp Phe
 355 360 365
 Ser Ala Asp Gly Glu Tyr Ile Gln Met Gln Leu Thr Leu Leu Val Gly
 370 375 380
 Asn His Thr Gln Arg Thr Ala Ile Leu Gly Leu Trp Lys Ile Ala Arg
 385 390 395 400

Lys Trp Met Arg Arg Lys Met Gly Lys Trp Pro Ala Val Val Val Met
 405 410 415
 Gly Trp Pro

<210> 4923

<211> 699

<212> PRT

<213> Homo sapiens

<400> 4923

Met Asn Thr Phe Gln Ala Ser Val Ser Phe Gln Asp Val Thr Val Glu
 1 5 10 15
 Phe Ser Gln Glu Glu Trp Gln His Met Gly Pro Val Glu Arg Thr Leu
 20 25 30
 Tyr Arg Asp Val Met Leu Glu Asn Tyr Ser His Leu Val Ser Val Gly
 35 40 45
 Tyr Cys Phe Thr Lys Pro Glu Leu Ile Phe Thr Leu Glu Gln Gly Glu
 50 55 60
 Asp Pro Trp Leu Leu Glu Lys Glu Lys Gly Phe Leu Ser Arg Asn Ser
 65 70 75 80
 Pro Glu Asp Ser Gln Pro Asp Glu Ile Ser Glu Lys Ser Pro Glu Asn
 85 90 95
 Gln Gly Lys His Leu Leu Gln Val Leu Phe Thr Asn Lys Leu Leu Thr
 100 105 110
 Thr Glu Gln Glu Ile Ser Gly Lys Pro His Asn Arg Asp Ile Asn Ile
 115 120 125
 Phe Arg Ala Arg Met Met Pro Cys Lys Cys Asp Ile Ala Gly Ser Ala
 130 135 140
 Cys Gln Gly Leu Ser Leu Met Ala Pro His Cys Gln Tyr Ser Lys Glu
 145 150 155 160
 Lys Ala His Glu Arg Asn Val Cys Asp Lys Trp Leu Ile Ser Ile Lys
 165 170 175
 Asp Gly Arg Thr Asn Thr Gln Glu Lys Ser Phe Ala Tyr Ser Lys Ile
 180 185 190

Val Lys Thr Leu His His Lys Glu Glu Val Ile Gln His Gln Thr Ile			
195	200	205	
Gln Thr Leu Gly Gln Asp Phe Glu Tyr Asn Glu Ser Arg Lys Ala Phe			
210	215	220	
Leu Glu Lys Ala Ala Leu Val Thr Ser Asn Ser Thr His Pro Lys Gly			
225	230	235	240
Lys Ser Tyr Asn Phe Asn Lys Phe Gly Glu Asn Lys Tyr Asp Lys Ser			
245	250	255	
Thr Phe Ile Ile Pro Gln Asn Met Asn Pro Glu Lys Ser His Tyr Glu			
260	265	270	
Phe Asn Asp Thr Gly Asn Cys Phe Cys Arg Ile Thr His Lys Thr Leu			
275	280	285	
Thr Gly Gly Lys Ser Phe Ser Gln Lys Ser His Ile Arg Glu His His			
290	295	300	
Arg Val His Ile Gly Val Lys Pro Phe Glu Tyr Gly Lys Ser Phe Asn			
305	310	315	320
Arg Asn Ser Thr Leu Pro Val His Gln Arg Thr His Ala Thr Asp Lys			
325	330	335	
Tyr Ser Asp Tyr His Pro Cys Thr Glu Thr Phe Ser Tyr Gln Ser Thr			
340	345	350	
Phe Ser Val His Gln Lys Val His Ile Arg Ala Lys Pro Tyr Glu Tyr			
355	360	365	
Asn Glu Cys Gly Lys Ser Cys Ser Met Asn Ser His Leu Ile Trp Pro			
370	375	380	
Gln Lys Ser His Thr Gly Glu Lys Pro Tyr Glu Cys Pro Glu Cys Gly			
385	390	395	400
Lys Ala Phe Ser Glu Lys Ser Arg Leu Arg Lys His Gln Arg Thr His			
405	410	415	
Thr Gly Glu Lys Pro Tyr Lys Cys Asp Gly Cys Asp Lys Ala Phe Ser			
420	425	430	
Ala Lys Ser Gly Leu Arg Ile His Gln Arg Thr His Thr Gly Glu Lys			
435	440	445	
Pro Phe Glu Cys His Glu Cys Gly Lys Ser Phe Asn Tyr Lys Ser Ile			
450	455	460	
Leu Ile Val His Gln Arg Thr His Thr Gly Glu Lys Pro Phe Glu Cys			
465	470	475	480

Asn Glu Cys Gly Lys Ser Phe Ser His Met Ser Gly Leu Arg Asn His
 485 490 495
 Arg Arg Thr His Thr Gly Glu Arg Pro Tyr Lys Cys Asp Glu Cys Gly
 500 505 510
 Lys Ala Phe Lys Leu Lys Ser Gly Leu Arg Lys His His Arg Thr His
 515 520 525
 Thr Gly Glu Lys Pro Tyr Lys Cys Asn Gln Cys Gly Lys Ala Phe Gly
 530 535 540
 Gln Lys Ser Gln Leu Arg Gly His His Arg Ile His Thr Gly Glu Lys
 545 550 555 560
 Pro Tyr Lys Cys Asn His Cys Gly Glu Ala Phe Ser Gln Lys Ser Asn
 565 570 575
 Leu Arg Val His His Arg Thr His Thr Gly Glu Lys Pro Tyr Gln Cys
 580 585 590
 Glu Glu Cys Gly Lys Thr Phe Arg Gln Lys Ser Asn Leu Arg Gly His
 595 600 605
 Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly
 610 615 620
 Lys Ala Phe Ser Glu Lys Ser Val Leu Arg Lys His Gln Arg Thr His
 625 630 635 640
 Thr Gly Glu Lys Pro Tyr Asn Cys Asn Gln Cys Gly Glu Ala Phe Ser
 645 650 655
 Gln Lys Ser Asn Leu Arg Val His Gln Arg Thr His Thr Gly Glu Lys
 660 665 670
 Pro Tyr Lys Cys Asp Lys Cys Gly Arg Thr Phe Ser Gln Lys Ser Ser
 675 680 685
 Leu Arg Glu His Gln Lys Ala His Pro Gly Asp
 690 695

<210> 4924

<211> 319

<212> PRT

<213> Homo sapiens

<400> 4924

Met Glu Tyr Pro Ala Pro Ala Thr Val Gln Ala Ala Asp Gly Gly Ala
 1 5 10 15
 Ala Gly Pro Tyr Ser Ser Ser Glu Leu Leu Glu Gly Gln Glu Pro Asp
 20 25 30
 Gly Val Arg Phe Asp Arg Glu Arg Ala Arg Arg Leu Trp Glu Ala Val
 35 40 45
 Ser Gly Ala Gln Pro Val Gly Arg Glu Glu Ala Gln Phe Phe Pro His
 50 55 60
 Ser Arg Thr Val Ile Pro Ile Leu Val Leu Ser Glu Thr Tyr Ser Leu
 65 70 75 80
 Cys His Pro Val Glu His Met Ile Gln Lys Asn Gln Cys Leu Phe Thr
 85 90 95
 Asn Thr Gln Cys Lys Val Cys Cys Ala Leu Leu Ile Ser Glu Ser Gln
 100 105 110
 Lys Leu Ala His Tyr Gln Ser Lys Lys His Ala Asn Lys Val Lys Arg
 115 120 125
 Tyr Leu Ala Ile His Gly Met Glu Thr Leu Lys Gly Glu Thr Lys Lys
 130 135 140
 Leu Asp Ser Asp Gln Lys Ser Ser Arg Ser Lys Asp Lys Asn Gln Cys
 145 150 155 160
 Cys Pro Ile Cys Asn Met Thr Phe Ser Ser Pro Val Val Ala Gln Ser
 165 170 175
 His Tyr Leu Gly Lys Thr His Ala Lys Asn Leu Lys Leu Lys Gln Gln
 180 185 190
 Ser Thr Lys Val Glu Ala Leu His Gln Asn Arg Glu Met Ile Asp Pro
 195 200 205
 Asp Lys Phe Cys Ser Leu Cys His Ala Thr Phe Asn Asp Pro Val Met
 210 215 220
 Ala Gln Gln His Tyr Val Gly Lys Lys His Arg Lys Gln Glu Thr Lys
 225 230 235 240
 Leu Lys Leu Met Ala Arg Tyr Gly Arg Leu Ala Asp Pro Ala Val Thr
 245 250 255
 Asp Phe Pro Ala Gly Lys Gly Tyr Pro Cys Lys Thr Cys Lys Ile Val
 260 265 270
 Leu Asn Ser Ile Glu Gln Tyr Gln Ala His Val Ser Gly Phe Lys His

275 280 285
 Lys Asn Gln Ser Pro Lys Thr Val Ala Ser Ser Leu Gly Gln Ile Pro
 290 295 300
 Met Gln Arg Gln Pro Ile Gln Lys Asp Ser Thr Thr Leu Glu Asp

 305 310 315

<210> 4925

<211> 458

<212> PRT

<213> Homo sapiens

<400> 4925

Met Glu Ser Asn Phe Asn Thr Glu Ser Ser Ser Thr Phe Thr Leu Gln
 1 5 10 15
 Ser Ser Ser Glu Thr Leu Phe Ser Ile Gln Leu Leu Asp Phe Lys Thr
 20 25 30
 Ser Leu Leu Glu Ala Leu Glu Glu Leu Arg Met Arg Arg Glu Ala Glu
 35 40 45
 Ile His Tyr Glu Glu Gln Ile Gly Lys Ile Ile Val Glu Thr Gln Glu
 50 55 60
 Leu Lys Trp Gln Lys Glu Thr Leu Gln Asn Gln Lys Glu Thr Leu Ala
 65 70 75 80
 Glu Gln His Lys Glu Ala Met Ala Val Phe Lys Lys Gln Leu Gln Met
 85 90 95
 Lys Met Cys Ala Leu Glu Glu Glu Lys Gly Lys Tyr Gln Leu Ala Thr
 100 105 110
 Glu Ile Lys Glu Lys Glu Ile Glu Gly Leu Lys Glu Thr Leu Lys Ala
 115 120 125
 Leu Gln Val Ser Lys Tyr Ser Leu Gln Lys Lys Val Ser Glu Met Glu
 130 135 140
 Gln Lys Val Gln Leu Leu Leu Ala Lys Glu Asp Tyr His Lys Gln
 145 150 155 160
 Leu Ser Glu Ile Glu Lys Tyr Tyr Ala Thr Ile Thr Gly Gln Phe Gly
 165 170 175

Leu Val Lys Glu Asn His Glu Lys Leu Glu Gln Asn Val Arg Glu Ala
 180 185 190
 Ile Gln Ser Asn Lys Arg Leu Ser Ala Leu Asn Lys Lys Gln Glu Ala
 195 200 205
 Glu Ile Cys Ser Leu Lys Lys Glu Leu Lys Lys Ala Ala Ser Asp Leu
 210 215 220
 Ile Lys Ser Lys Val Thr Cys Gln Tyr Lys Met Gly Glu Glu Asn Ile
 225 230 235 240
 Asn Leu Thr Ile Lys Glu Gln Lys Phe Gln Glu Leu Gln Glu Arg Leu
 245 250 255
 Asn Met Glu Leu Glu Leu Asn Glu Lys Ile Asn Glu Glu Ile Thr His
 260 265 270
 Ile Gln Glu Glu Lys Gln Asp Ile Ile Ile Ser Phe Gln His Met Gln
 275 280 285
 Gln Leu Leu Arg Gln Gln Ile Gln Ala Asn Thr Glu Met Glu Ala Glu
 290 295 300
 Leu Lys Val Leu Lys Glu Asn Asn Gln Thr Leu Glu Arg Asp Asn Glu
 305 310 315 320
 Leu Gln Arg Glu Lys Val Lys Glu Asn Glu Glu Lys Phe Leu Asn Leu
 325 330 335
 Gln Asn Glu His Glu Lys Ala Leu Gly Thr Trp Lys Arg His Ala Glu
 340 345 350
 Glu Leu Asn Gly Glu Ile Asn Lys Ile Lys Asn Glu Leu Ser Ser Leu
 355 360 365
 Lys Glu Thr His Ile Glu Leu Gln Glu His Tyr Asn Lys Leu Cys Asn
 370 375 380
 Gln Lys Thr Phe Glu Glu Asp Lys Lys Phe Gln Asn Val Pro Glu Val
 385 390 395 400
 Asn Asn Glu Asn Ser Glu Met Ser Thr Glu Lys Ser Glu Asn Thr Ile
 405 410 415
 Ile Gln Lys Tyr Asn Thr Glu Gln Glu Ile Arg Glu Glu Asn Met Glu
 420 425 430
 Asn Phe Cys Ser Asp Thr Glu Tyr Arg Glu Lys Glu Glu Lys Lys Arg
 435 440 445
 Arg Leu Ile Tyr Arg Gly Asn Asn Tyr Arg
 450 455

<210> 4926

<211> 814

<212> PRT

<213> Homo sapiens

<400> 4926

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Met Val Lys Gln Thr Ile Gln Ile Phe Ala Arg Val Lys Pro Pro Val
  1           5           10           15
Arg Lys His Gln Gln Gly Ile Tyr Ser Ile Asp Glu Asp Glu Lys Leu
      20           25           30
Ile Pro Ser Leu Glu Ile Ile Leu Pro Arg Asp Leu Ala Asp Gly Phe
      35           40           45
Val Asn Asn Lys Arg Glu Ser Tyr Lys Phe Lys Phe Gln Arg Ile Phe
      50           55           60
Asp Gln Asp Ala Asn Gln Glu Thr Val Phe Glu Asn Ile Ala Lys Pro
      65           70           75           80
Val Ala Gly Ser Val Leu Ala Gly Tyr Asn Gly Thr Ile Phe Ala Tyr
      85           90           95
Gly Gln Thr Gly Ser Gly Lys Thr Phe Thr Ile Thr Gly Gly Ala Glu
      100          105          110
Arg Tyr Ser Asp Arg Gly Ile Ile Pro Arg Thr Leu Ser Tyr Ile Phe
      115          120          125
Glu Gln Leu Gln Lys Asp Ser Ser Lys Ile Tyr Thr Thr His Ile Ser
      130          135          140
Tyr Leu Glu Ile Tyr Asn Glu Cys Gly Tyr Asp Leu Leu Asp Pro Arg
      145          150          155          160
His Glu Ala Ser Ser Leu Glu Asp Leu Pro Lys Val Thr Ile Leu Glu
      165          170          175
Asp Pro Asp Gln Asn Ile His Leu Lys Asn Leu Thr Leu His Gln Ala
      180          185          190
Thr Thr Glu Glu Glu Ala Leu Asn Leu Leu Phe Leu Gly Asp Thr Asn
      195          200          205
Arg Met Ile Ala Glu Thr Pro Met Asn Gln Ala Ser Thr Arg Ser His
      210          215          220

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Cys Ile Phe Thr Ile His Leu Ser Ser Lys Glu Pro Gly Ser Ala Thr
 225 230 235 240
 Val Arg His Ala Lys Leu His Leu Val Asp Leu Ala Gly Ser Glu Arg
 245 250 255
 Val Ala Lys Thr Gly Val Gly Gly His Leu Leu Thr Glu Ala Lys Tyr
 260 265 270
 Ile Asn Leu Ser Leu His Tyr Leu Glu Gln Val Ile Ile Ala Leu Ser
 275 280 285
 Glu Lys His Arg Ser His Ile Pro Tyr Arg Asn Ser Met Met Thr Ser
 290 295 300
 Val Leu Arg Asp Ser Leu Gly Gly Asn Cys Met Thr Thr Met Ile Ala
 305 310 315 320
 Thr Leu Ser Leu Glu Lys Arg Asn Leu Asp Glu Ser Ile Ser Thr Cys
 325 330 335
 Arg Phe Ala Gln Arg Val Ala Leu Ile Lys Asn Glu Ala Val Leu Asn
 340 345 350
 Glu Glu Ile Asn Pro Arg Leu Val Ile Lys Arg Leu Gln Lys Glu Ile
 355 360 365
 Gln Glu Leu Lys Asp Glu Leu Ala Met Val Thr Gly Glu Gln Arg Thr
 370 375 380
 Glu Ala Leu Thr Glu Ala Glu Leu Leu Gln Leu Glu Lys Leu Ile Thr
 385 390 395 400
 Ser Phe Leu Glu Asp Gln Asp Ser Asp Ser Arg Leu Glu Val Gly Ala
 405 410 415
 Asp Met Arg Lys Val His His Cys Phe His His Leu Lys Lys Leu Leu
 420 425 430
 Asn Asp Lys Lys Ile Leu Glu Asn Asn Thr Val Ser Ser Glu Ser Lys
 435 440 445
 Asp Gln Asp Cys Gln Glu Pro Leu Lys Glu Glu Glu Tyr Arg Lys Leu
 450 455 460
 Arg Asp Ile Leu Lys Gln Arg Asp Asn Glu Ile Asn Ile Leu Val Asn
 465 470 475 480
 Met Leu Lys Lys Glu Lys Lys Lys Ala Gln Glu Ala Leu His Leu Ala
 485 490 495
 Gly Met Asp Arg Arg Glu Phe Arg Gln Ser Gln Ser Pro Pro Phe Arg
 500 505 510

Leu Gly Asn Pro Glu Glu Gly Gln Arg Met Arg Leu Ser Ser Ala Pro
 515 520 525
 Ser Gln Ala Gln Asp Phe Ser Ile Leu Gly Lys Arg Ser Ser Leu Leu
 530 535 540
 His Lys Lys Ile Gly Met Lys Glu Glu Met Ser Leu Gly Cys Gln Glu
 545 550 555 560
 Ala Phe Glu Ile Phe Lys Arg Asp His Ala Asp Ser Val Thr Ile Asp
 565 570 575
 Asp Asn Lys Gln Ile Leu Lys Gln Arg Phe Ser Glu Ala Lys Ala Leu
 580 585 590
 Gly Glu Ser Ile Asn Glu Ala Arg Ser Lys Ile Gly His Leu Lys Glu
 595 600 605
 Glu Ile Thr Gln Arg His Ile Gln Gln Val Ala Leu Gly Ile Ser Glu
 610 615 620
 Asn Met Ala Val Pro Leu Met Pro Asp Gln Gln Glu Glu Lys Leu Arg
 625 630 635 640
 Ser Gln Leu Glu Glu Glu Lys Arg Arg Tyr Lys Thr Met Phe Thr Arg
 645 650 655
 Leu Lys Ala Leu Lys Val Glu Ile Glu His Leu Gln Leu Leu Met Asp
 660 665 670
 Lys Ala Lys Val Lys Leu Gln Lys Glu Phe Glu Val Trp Trp Ala Glu
 675 680 685
 Glu Ala Thr Asn Leu Gln Val Asn Ser Pro Ala Val Asn Ser Leu Asp
 690 695 700
 His Thr Lys Pro Phe Leu Gln Thr Ser Asp Phe Gln His Glu Arg Ser
 705 710 715 720
 Gln Leu Leu Ser Asn Lys Ser Ser Gly Gly Trp Glu Val Gln Asp Gln
 725 730 735
 Gly Thr Gly Arg Phe Asp Val Cys Asp Val Asn Ala Arg Lys Ile Leu
 740 745 750
 Pro Ser Pro Cys Pro Ser Pro His Ser Gln Lys Gln Ser Ser Thr Ser
 755 760 765
 Thr Pro Leu Gly Asp Ser Ile Pro Lys Arg Pro Val Ser Ser Ile Pro
 770 775 780
 Leu Thr Gly Asp Ser Gln Thr Asp Ser Asp Ile Ile Ala Phe Ile Lys
 785 790 795 800

Ala Arg Gln Ser Ile Leu Gln Lys Gln Cys Leu Gly Ser Asn

805

810

<210> 4927

<211> 503

<212> PRT

<213> Homo sapiens

<400> 4927

Met Gly Ala Leu Thr Phe Arg Asp Val Ala Ile Glu Phe Ser Leu Glu

1

5

10

15

Glu Trp Gln Cys Leu Asp Thr Glu Gln Gln Asn Leu Tyr Arg Asn Val

20

25

30

Met Leu Asp Asn Tyr Arg Asn Leu Val Phe Leu Gly Ile Ala Val Ser

35

40

45

Lys Pro Asp Leu Ile Thr Cys Leu Glu Gln Glu Lys Glu Pro Trp Asn

50

55

60

Leu Lys Thr His Asp Met Val Ala Lys Pro Pro Val Ile Cys Ser His

65

70

75

80

Ile Ala Gln Asp Leu Trp Pro Glu Gln Gly Ile Lys Asp Tyr Phe Gln

85

90

95

Glu Val Ile Leu Arg Gln Tyr Lys Lys Cys Arg His Glu Asn Leu Leu

100

105

110

Leu Arg Lys Gly Cys Lys Asn Val Asp Glu Phe Lys Met His Lys Lys

115

120

125

Gly Tyr Asn Arg His Asn Gln Cys Leu Thr Thr Ser His Ser Lys Ile

130

135

140

Phe Gln Cys Asp Lys Tyr Val Lys Val Phe His Lys Phe Ser Asn Ser

145

150

155

160

Asn Arg His Lys Ile Arg His Thr Ser Lys Lys Pro Phe Lys Cys Lys

165

170

175

Glu Cys Gly Lys Leu Phe Cys Ile Leu Ser His Leu Ala Gln His Lys

180

185

190

Lys Ile His Thr Gly Glu Lys Ser Tyr Lys Cys Glu Glu Tyr Gly Lys

195

200

205

Ala Phe Asn Glu Ser Ser Asn Cys Thr Thr His Lys Arg Ile Thr Glu
 210 215 220
 Lys Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Ala Phe Asn Trp Phe
 225 230 235 240
 Ser His Phe Thr Thr His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr
 245 250 255
 Gln Cys Glu Lys Cys Gly Lys Phe Phe Asn Gln Ser Thr Asn Leu Thr
 260 265 270
 Thr His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu
 275 280 285
 Cys Gly Lys Ala Phe Asn Gln Ser Ser Asn Leu Thr Glu His Lys Lys
 290 295 300
 Ile His Thr Lys Glu Gln Pro Tyr Lys Cys Glu Lys Cys Gly Lys Ala
 305 310 315 320
 Phe Lys Trp Ser Ser Thr Leu Thr Lys His Lys Arg Ile His Asn Gly
 325 330 335
 Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Asn Arg Ser
 340 345 350
 Ser Thr Leu Asn Arg His Lys Ile Thr His Thr Gly Gly Lys Pro Tyr
 355 360 365
 Lys Tyr Lys Glu Cys Gly Lys Ala Phe Asn Gln Ser Ser Thr Leu Thr
 370 375 380
 Ile His Lys Ile Ile His Thr Val Glu Lys Phe Tyr Lys Cys Glu Glu
 385 390 395 400
 Cys Gly Lys Ala Phe Ser Arg Ile Ser His Leu Thr Thr His Lys Arg
 405 410 415
 Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Arg Ala
 420 425 430
 Phe Asn Gln Ser Ser Thr Leu Thr Thr His Lys Arg Ile His Thr Gly
 435 440 445
 Glu Lys Pro Tyr Glu Cys Glu Glu Cys Gly Lys Ala Phe Asn Arg Ser
 450 455 460
 Ser Thr Leu Thr Thr His Lys Ile Ile His Ser Gly Glu Lys Ile Tyr
 465 470 475 480
 Lys Cys Lys Glu Cys Gly Lys Ala Phe Arg Arg Phe Ser His Leu Thr
 485 490 495

Arg His Lys Thr Ile His Thr

500

<210> 4928

<211> 388

<212> PRT

<213> Homo sapiens

<400> 4928

Met	Leu	Leu	Lys	Glu	Lys	Glu	Asp	Ser	Leu	Met	Thr	Cys	Gln	Gln	Ile
1			5						10					15	
Tyr	Lys	Ala	Leu	Gln	Glu	Glu	Leu	Thr	Val	Lys	Glu	Lys	Gln	Glu	Glu
			20					25					30		
Asp	Ile	Lys	Arg	Arg	Ile	Asn	Leu	Ala	Glu	Asn	Glu	Leu	Glu	Ile	Thr
		35					40					45			
Lys	Thr	Leu	Leu	Asn	Gln	Thr	Arg	Glu	Glu	Val	Leu	Thr	Leu	Lys	Asn
	50				55					60					
Glu	Arg	Glu	Leu	Met	Leu	Ile	Ser	His	Gln	Lys	Ser	Ile	Glu	Gln	Leu
65				70					75					80	
Gln	Glu	Thr	Leu	Arg	Gln	Lys	Leu	Leu	Ser	Asp	Asp	Asn	Trp	Lys	Glu
			85					90					95		
Lys	Ile	Glu	Ala	Glu	Leu	Ala	Lys	Glu	Arg	Ala	Gln	His	Leu	Val	Glu
		100						105					110		
Phe	Glu	Glu	Gln	Ala	Leu	Leu	Phe	Lys	Glu	Glu	Thr	Lys	Leu	Gln	Leu
		115						120					125		
Asp	Ile	Glu	Lys	Glu	Lys	His	Gln	Asp	Val	Ile	Gln	Lys	Tyr	Lys	Lys
	130					135						140			
Glu	Gln	Glu	Glu	Leu	Gln	Met	Lys	Ile	Ser	Asp	Leu	Ile	Thr	Gly	Ala
145				150					155					160	
Thr	Arg	Asp	Leu	Arg	Gln	Glu	Val	Thr	Thr	Leu	Lys	Glu	Lys	Leu	His
			165					170					175		
Lys	Ser	His	Thr	Arg	Tyr	Thr	Glu	Glu	Ser	Asn	Ser	Lys	Glu	Lys	Glu
		180						185					190		
Ile	Glu	Asn	Leu	Lys	Asn	Leu	Val	Ala	Glu	Phe	Glu	Ser	Arg	Leu	Lys
		195					200						205		

Lys Glu Ile Asp Ser Asn Asp Ser Val Ser Glu Asn Leu Arg Lys Glu
 210 215 220
 Met Glu Gln Lys Ser Asp Glu Leu Lys Arg Val Met Leu Ala Gln Thr
 225 230 235 240
 Gln Leu Ile Glu Gln Phe Asn Gln Ser Gln Glu Glu Asn Thr Phe Leu
 245 250 255
 Gln Glu Thr Val Arg Arg Glu Cys Glu Glu Arg Phe Glu Leu Thr Glu
 260 265 270
 Ala Leu Ser Gln Ala Arg Glu Gln Leu Leu Glu Leu Ser Lys Leu Arg
 275 280 285
 Gly Ser Leu Pro Phe Ser Pro Cys Ser Leu Ser Lys Gly Ser Leu Thr
 290 295 300
 Ser Pro Ala Ala Ala Val Ser Asn His Gly Glu Arg Ser Leu Ala Arg
 305 310 315 320
 Leu Asn Ser Glu Lys Gly Ile Gln Ile Pro Asn Leu Arg Gly Val Ser
 325 330 335
 Lys Pro Thr Thr Phe Pro Thr Ser Asp Lys Pro Lys Arg Val Arg Ser
 340 345 350
 Gly Val Pro Ile Leu Pro Gln Pro His Pro Pro Arg Gly Gly Ala Ser
 355 360 365
 Ser Ala Asn Glu Thr Arg Gln Arg Leu Ala Ala Ile Leu Arg Arg Arg
 370 375 380
 Arg Ser Gln Gln
 385

<210> 4929

<211> 165

<212> PRT

<213> Homo sapiens

<400> 4929

Met Asp Gly Pro Ala Thr Pro Val Ser Thr Asp Ser Asn Pro Pro Thr
 1 5 10 15
 Gln Gln Glu Asp Arg Ser Ala Cys Lys Cys Thr His Leu Glu Lys Arg
 20 25 30

<211> 832

<213> Homo sapiens

Met	Ala	Gly	Leu	Arg	Tyr	Ser	Val	Lys	Val	Tyr	Val	Leu	Asn	Glu	Asp
1					5					10					15
Glu	Glu	Trp	Asn	Asn	Leu	Gly	Thr	Gly	Gln	Val	Ser	Ser	Thr	Tyr	Asp
			20						25					30	
Glu	Gln	Phe	Gln	Gly	Met	Ser	Leu	Leu	Val	Arg	Ser	Asp	Ser	Asp	Gly
			35						40					45	
Ser	Val	Ile	Leu	Arg	Ser	Gln	Ile	Pro	Pro	Asp	Arg	Pro	Tyr	Gly	Lys
		50					55					60			
Tyr	Gln	Glu	Thr	Leu	Ile	Val	Trp	Tyr	Glu	Ala	Glu	Asn	Gln	Gly	Leu
		65				70					75				80

Val	Leu	Lys	Phe	Gln	Asp	Pro	Ala	Gly	Cys	Gln	Asp	Ile	Trp	Lys	Glu
				85					90					95	
Ile	Cys	Gln	Ala	Gln	Gly	Lys	Asp	Pro	Ser	Ile	Gln	Thr	Thr	Val	Asn
				100				105						110	
Ile	Ser	Asp	Glu	Pro	Glu	Glu	Asp	Phe	Asn	Glu	Met	Ser	Val	Ile	Ser
				115				120						125	
Asn	Met	Val	Val	Leu	Pro	Asp	Cys	Glu	Leu	Asn	Thr	Leu	Asp	Gln	Ile
				130				135						140	
Ala	Asp	Ile	Val	Thr	Ser	Val	Phe	Ser	Ser	Pro	Val	Thr	Asp	Arg	Glu
				145				150						155	
Arg	Leu	Ala	Glu	Ile	Leu	Lys	Asn	Glu	Ala	Tyr	Ile	Pro	Lys	Leu	Leu
				165				170						175	
Gln	Leu	Phe	His	Thr	Cys	Glu	Asn	Leu	Glu	Asn	Thr	Glu	Gly	Leu	His
				180				185						190	
His	Leu	Tyr	Glu	Ile	Ile	Lys	Gly	Ile	Leu	Phe	Leu	Asn	Glu	Ala	Cys
				195				200						205	
Leu	Phe	Glu	Ile	Met	Phe	Ser	Asp	Glu	Cys	Ile	Met	Asp	Val	Val	Gly
				210				215						220	
Cys	Leu	Glu	Tyr	Asp	Pro	Ala	Leu	Asp	Gln	Pro	Lys	Arg	His	Arg	Asp
				225				230						235	
Phe	Leu	Thr	Asn	Asp	Ala	Lys	Phe	Lys	Glu	Val	Ile	Pro	Ile	Thr	Asn
				245				250						255	
Ser	Glu	Leu	Arg	Gln	Lys	Ile	His	Gln	Thr	Tyr	Arg	Leu	Gln	Tyr	Ile
				260				265						270	
Tyr	Asp	Ile	Leu	Leu	Pro	Val	Pro	Ser	Ile	Phe	Glu	Asp	Asn	Phe	Leu
				275				280						285	
Ser	Thr	Leu	Thr	Thr	Phe	Ile	Phe	Ser	Asn	Lys	Ala	Glu	Ile	Val	Ser
				290				295						300	
Met	Leu	Gln	Lys	Asp	His	Lys	Phe	Leu	Tyr	Glu	Val	Phe	Ala	Gln	Leu
				305				310						315	
Lys	Asp	Glu	Thr	Thr	His	Asp	Asp	Arg	Arg	Cys	Glu	Leu	Leu	Phe	Phe
				325				330						335	
Phe	Lys	Glu	Leu	Cys	Ser	Phe	Ser	Gln	Ala	Leu	Gln	Pro	Gln	Ser	Lys
				340				345						350	
Asp	Ala	Leu	Phe	Glu	Thr	Leu	Ile	Gln	Leu	Gly	Val	Leu	Pro	Ala	Leu
				355				360						365	

Lys Ile Val Met Ile Arg Asp Asp Leu Gln Val Arg Ser Ala Ala Ala
 370 375 380
 Val Ile Cys Ala Tyr Leu Val Glu Tyr Ser Pro Ser Arg Ile Arg Glu
 385 390 395 400
 Phe Ile Ile Ser Glu Ala His Val Cys Lys Asp Ile Tyr Leu Phe Ile
 405 410 415
 Asn Val Ile Ile Lys Gln Met Ile Cys Asp Thr Asp Pro Glu Leu Gly
 420 425 430
 Gly Ala Val His Leu Met Val Val Leu His Thr Leu Leu Asp Pro Arg
 435 440 445
 Asn Met Leu Thr Thr Pro Glu Lys Ser Glu Arg Ser Glu Phe Leu His
 450 455 460
 Phe Phe Tyr Lys His Cys Met His Lys Phe Thr Ala Pro Leu Leu Ala
 465 470 475 480
 Ala Thr Ser Glu His Asn Cys Glu Glu Asp Asp Ile Ala Gly Tyr Asp
 485 490 495
 Lys Ser Lys Asn Cys Pro Asn Asp Asn Gln Thr Ala Gln Leu Leu Ala
 500 505 510
 Leu Ile Leu Glu Leu Leu Thr Phe Cys Ile Gln His His Thr Phe Tyr
 515 520 525
 Ile Arg Ser Tyr Ile Leu Asn Lys Asp Leu Leu Arg Lys Ala Leu Ile
 530 535 540
 Leu Met Asn Ser Lys His Thr His Leu Ile Leu Cys Val Leu Arg Phe
 545 550 555 560
 Met Arg Arg Met Ile Cys Leu Asn Asp Glu Ala Tyr Asn Asn Tyr Ile
 565 570 575
 Ile Lys Gly Asn Leu Phe Glu Pro Val Val Asn Ala Leu Leu Asp Asn
 580 585 590
 Gly Thr Arg Tyr Asn Met Leu Asn Ser Ala Ile Leu Glu Leu Phe Glu
 595 600 605
 Tyr Ile Arg Val Glu Asn Ile Lys Pro Leu Val Ser His Ile Val Glu
 610 615 620
 Lys Phe Tyr Asn Thr Leu Glu Ser Ile Glu Tyr Val Gln Thr Phe Lys
 625 630 635 640
 Gly Leu Lys Ile Lys Tyr Glu Lys Glu Arg Asp Arg Gln Ser Gln Ile
 645 650 655

Gln Lys Asn Leu His Ser Val Leu Gln Asn Ile Val Val Phe Arg Gly
 660 665 670
 Thr Ile Glu Glu Ile Gly Leu Glu Glu Glu Ile Cys Phe Met Glu Asp
 675 680 685
 Ala Gly Glu Ala Val Met Pro Pro Leu Glu Asp Asp Asp Glu Phe Met
 690 695 700
 Glu Thr Lys Arg Thr Gln Glu Gly Glu Ala Val Met Pro Pro Leu Glu
 705 710 715 720
 Asp Asp Asp Lys Phe Thr Glu Thr Lys Arg Thr His Gln Glu Gly Glu
 725 730 735
 Ala Val Met Pro Pro Leu Glu Asp Asp Asp Glu Phe Met Glu Thr Lys
 740 745 750
 Arg Asn Gln Glu His Glu Gly Lys Val Asp Ser Pro Lys Arg Thr Ser
 755 760 765
 Ser Gly Asp Phe Lys Phe Ser Ser Ser Tyr Ser Ala Cys Ala Ala Ile
 770 775 780
 Gly Thr Gly Ser Pro Ser Gly Ser Ser Val Val Arg Leu Val Asp His
 785 790 795 800
 Pro Asp Asp Glu Glu Glu Lys Glu Glu Asp Glu Glu Glu Lys Glu Glu
 805 810 815
 Asp Lys Glu Asp Glu Thr Ser Pro Lys Lys Lys Pro His Leu Ser Ser
 820 825 830

<210> 4931

<211> 250

<212> PRT

<213> Homo sapiens

<400> 4931

Met Phe His Gly Thr Val Thr Glu Glu Leu Thr Ser His Glu Glu Trp
 1 5 10 15
 Ser His Tyr Asn Glu Asn Ile Arg Glu Gly Gln Lys Asp Phe Val Phe
 20 25 30
 Val Lys Phe Asn Gly Leu His Leu Lys Ser Met Glu Asn Leu Gln Ser
 35 40 45

Cys Ile Ser Leu Arg Val Cys Ile Phe Ser Asn Asn Phe Ile Thr Asp
 50 55 60
 Ile His Pro Leu Gln Ser Cys Ile Lys Leu Ile Lys Leu Asp Leu His
 65 70 75 80
 Gly Asn Gln Ile Lys Ser Leu Pro Asn Thr Lys Phe Trp Asn Gly Leu
 85 90 95
 Lys Asn Leu Lys Leu Leu Tyr Leu His Asp Asn Gly Phe Ala Lys Leu
 100 105 110
 Lys Asn Ile Cys Val Leu Ser Ala Cys Pro Thr Leu Ile Ala Leu Thr
 115 120 125
 Met Phe Asp Cys Pro Val Ser Leu Lys Lys Gly Tyr Arg His Val Leu
 130 135 140
 Val Asn Ser Ile Trp Pro Leu Lys Ala Leu Asp His His Val Ile Ser
 145 150 155 160
 Asp Glu Glu Ile Ile Gln Asn Trp His Leu Pro Glu Arg Phe Lys Ala
 165 170 175
 Cys Asn His Arg Leu Phe Phe Asn Phe Cys Pro Ala Leu Arg Lys Gly
 180 185 190
 Thr Thr Tyr Glu Glu Glu Ile Asn Asn Ile Lys His Ile Thr Ser Lys
 195 200 205
 Ile Asn Ala Ile Leu Ala His Asn Ser Pro Val Leu Ile Val Gln Arg
 210 215 220
 Trp Ile Arg Gly Phe Leu Val Arg Lys Asn Leu Ser Pro Val Phe Phe
 225 230 235 240
 His Lys Lys Lys Thr Ala Gly Lys Asn Tyr
 245 250

<210> 4932

<211> 788

<212> PRT

<213> Homo sapiens

<400> 4932

Met Ala Cys Leu Thr His Arg Asn Glu Thr Asp Ala Arg Met Glu Phe
 1 5 10 15

Tyr Ser Leu Phe His Lys Gly Asn Lys Ala Gly Val Gln Trp His Asp
 20 25 30
 Leu Gly Ser Leu Gln Pro Leu Pro Pro Arg Phe Lys Arg Phe Ser Cys
 35 40 45
 Leu Ser Leu Gln Ser Ser Trp Asp Tyr Ser Leu Ser Lys Phe Asp Glu
 50 55 60
 Arg Cys Cys Phe Leu Tyr Val His Asp Asn Ser Asp Asp Phe Gln Ile
 65 70 75 80
 Tyr Phe Ser Thr Glu Glu Gln Cys Ser Arg Phe Phe Ser Leu Val Lys
 85 90 95
 Glu Met Ile Thr Asn Thr Ala Gly Ser Thr Val Glu Leu Glu Gly Glu
 100 105 110
 Thr Asp Gly Asp Thr Leu Glu Tyr Glu Tyr Asp His Asp Ala Asn Gly
 115 120 125
 Glu Arg Val Val Leu Gly Lys Gly Thr Tyr Gly Ile Val Tyr Ala Gly
 130 135 140
 Arg Asp Leu Ser Asn Gln Val Arg Ile Ala Ile Lys Glu Ile Pro Glu
 145 150 155 160
 Arg Asp Ser Arg Tyr Ser Gln Pro Leu His Glu Glu Ile Ala Leu His
 165 170 175
 Lys Tyr Leu Lys His Arg Asn Ile Val Gln Tyr Leu Gly Ser Val Ser
 180 185 190
 Glu Asn Gly Tyr Ile Lys Ile Phe Met Glu Gln Val Pro Gly Gly Ser
 195 200 205
 Leu Ser Ala Leu Leu Arg Ser Lys Trp Gly Pro Met Lys Glu Pro Thr
 210 215 220
 Ile Lys Phe Tyr Thr Lys Gln Ile Leu Glu Gly Leu Lys Tyr Leu His
 225 230 235 240
 Glu Asn Gln Ile Val His Arg Asp Ile Lys Gly Asp Asn Val Leu Val
 245 250 255
 Asn Thr Tyr Ser Gly Val Val Lys Ile Ser Asp Leu Gly Thr Ser Lys
 260 265 270
 Arg Leu Ala Gly Val Asn Pro Cys Thr Glu Thr Phe Thr Gly Thr Leu
 275 280 285
 Gln Tyr Met Ala Pro Glu Ile Ile Asp Gln Gly Pro Arg Gly Tyr Gly
 290 295 300

Ala Pro Ala Asp Ile Trp Ser Leu Gly Cys Thr Ile Ile Glu Met Ala			
305	310	315	320
Thr Ser Lys Pro Pro Phe His Glu Leu Gly Glu Pro Gln Ala Ala Met			
	325	330	335
Phe Lys Val Gly Met Phe Lys Ile His Pro Glu Ile Pro Glu Ala Leu			
	340	345	350
Ser Ala Glu Ala Arg Ala Phe Ile Leu Ser Cys Phe Glu Pro Asp Pro			
	355	360	365
His Lys Arg Ala Thr Thr Ala Glu Leu Leu Arg Glu Gly Phe Leu Arg			
	370	375	380
Gln Val Asn Lys Gly Lys Lys Asn Arg Ile Ala Phe Lys Pro Ser Glu			
385	390	395	400
Gly Pro Arg Gly Val Val Leu Ala Leu Pro Thr Gln Gly Glu Pro Met			
	405	410	415
Ala Thr Ser Ser Ser Glu His Gly Ser Val Ser Pro Asp Ser Asp Ala			
	420	425	430
Gln Pro Asp Ala Leu Phe Glu Arg Thr Arg Ala Pro Arg His His Leu			
	435	440	445
Gly His Leu Leu Ser Val Pro Asp Glu Ser Ser Ala Leu Glu Asp Arg			
	450	455	460
Gly Leu Ala Ser Ser Pro Glu Asp Arg Asp Gln Gly Leu Phe Leu Leu			
465	470	475	480
Arg Lys Asp Ser Glu Arg Arg Ala Ile Leu Tyr Lys Ile Leu Trp Glu			
	485	490	495
Glu Gln Asn Gln Val Ala Ser Asn Leu Gln Glu Cys Val Ala Gln Ser			
	500	505	510
Ser Glu Glu Leu His Leu Ser Val Gly His Ile Lys Gln Ile Ile Gly			
	515	520	525
Ile Leu Arg Asp Phe Ile Arg Ser Pro Glu His Arg Val Met Ala Thr			
	530	535	540
Thr Ile Ser Lys Leu Lys Val Asp Leu Asp Phe Asp Ser Ser Ser Ile			
545	550	555	560
Ser Gln Ile His Leu Val Leu Phe Gly Phe Gln Asp Ala Val Asn Lys			
	565	570	575
Ile Leu Arg Asn His Leu Ile Arg Pro His Trp Met Phe Ala Met Asp			
	580	585	590

Asn Ile Ile Arg Arg Ala Val Gln Ala Ala Val Thr Ile Leu Ile Pro
 595 600 605
 Glu Leu Arg Ala His Phe Glu Pro Thr Cys Glu Thr Glu Gly Val Asp
 610 615 620
 Lys Asp Met Asp Glu Ala Glu Glu Gly Tyr Pro Pro Ala Thr Gly Pro
 625 630 635 640
 Gly Gln Glu Ala Gln Pro His Gln Gln His Leu Ser Leu Gln Leu Gly
 645 650 655
 Glu Leu Arg Gln Glu Thr Asn Arg Leu Leu Glu His Leu Val Glu Lys
 660 665 670
 Glu Arg Glu Tyr Gln Asn Leu Leu Arg Gln Thr Leu Glu Gln Lys Thr
 675 680 685
 Gln Glu Leu Tyr His Leu Gln Leu Lys Leu Lys Ser Asn Cys Ile Thr
 690 695 700
 Glu Asn Pro Ala Gly Pro Tyr Gly Gln Arg Thr Asp Lys Glu Leu Ile
 705 710 715 720
 Asp Trp Leu Arg Leu Gln Gly Ala Asp Ala Lys Thr Ile Glu Lys Ile
 725 730 735
 Val Glu Glu Gly Tyr Thr Leu Ser Asp Ile Leu Asn Glu Ile Thr Lys
 740 745 750
 Glu Asp Leu Arg Tyr Leu Arg Leu Arg Gly Gly Leu Leu Cys Arg Leu
 755 760 765
 Trp Ser Ala Val Ser Gln Tyr Arg Arg Ala Gln Glu Ala Ser Glu Thr
 770 775 780
 Lys Asp Lys Ala
 785

<210> 4933

<211> 266

<212> PRT

<213> Homo sapiens

<400> 4933

Met Leu Ile Asn Val Ile Ser Gly Ser Ser Tyr Met Ile His Ser Thr
 1 5 10 15

Gln Leu Ile Glu Asn Ala Glu Leu Arg Phe His Thr Asp Glu Gln Leu
 20 25 30
 Met Thr Leu Phe Met Gln Leu Gln Thr Ala Val Arg Ser Arg Met His
 35 40 45
 Pro Phe Tyr Ile Thr His Ile Arg Ala His Thr Pro Leu Pro Gly Pro
 50 55 60
 Leu Thr Ala Gly Asn Gln Met Ala Asp Arg Leu Val Ala Thr Ala Ile
 65 70 75 80
 Ser Asn Ala Arg His Phe His Asn Leu Thr Arg Val Asn Ala Ser Gly
 85 90 95
 Leu Lys Arg Arg Tyr Ser Ser Thr Arg Lys Glu Ala Lys Ala Ile Ile
 100 105 110
 Gln Arg Cys Pro Thr Cys Gln Met Val His Ser Ser Ser Phe Thr Gly
 115 120 125
 Gly Val Asn Pro Arg Arg Leu Glu Pro Asn Ser Leu Trp Glu Met Asp
 130 135 140
 Val Thr His Val Pro Ser Phe Gly Arg Leu Ala Tyr Val His Ala Cys
 145 150 155 160
 Val Asp Thr Phe Ser Leu Trp Ala Ala Cys Gln Ser Gly Glu Ser Ser
 165 170 175
 Ala Tyr Val Lys Arg His Leu Leu Gln Cys Phe Val Val Ile Gly Ile
 180 185 190
 Leu Ala Ser Ile Lys Thr Asp Asn Ala Pro Gly Tyr Thr Ser Gln Ala
 195 200 205
 Leu Ala Thr Phe Phe Ser Ile Arg Asn Ile Lys His Ile Thr Gly Ile
 210 215 220
 Pro Tyr Asn Ser Gln Gly Gln Ala Ile Val Glu Arg Met Asn Leu Ser
 225 230 235 240
 Leu Lys Gln Gln Leu Gln Lys Gln Lys Gly Glu Asn Arg Asp Tyr Gly
 245 250 255
 Thr Pro His Met Gln Leu Asn Arg Ile Ile
 260 265

<210> 4934

<211> 279

<212> PRT

<213> Homo sapiens

<400> 4934

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Met Gly Thr Ser Cys Leu Pro Asp Thr Phe Thr Lys Leu Ile Asn Pro
  1              5              10              15
Gln Glu Asn Thr Cys Ser Leu Glu Glu Phe Val Leu Gln Leu Glu Leu
      20              25              30
Ser Gly Tyr Ser Pro Glu Asp Leu Thr Ala Ala Leu Glu Ile Leu Glu
      35              40              45
Ala Ile Ile Ala Thr Gly Cys Phe Gly Ile Asp Lys Glu Glu Leu Arg
      50              55              60
Arg Arg Phe Ser Ala Leu Glu Lys Ala Gly Gly Gly Arg Thr Arg Thr
      65              70              75              80
Phe Ala Asp Cys Ile Gln Ala Leu Leu Glu Gln His Gln Val Leu Glu
      85              90              95
Val Gly Gly Asn Thr Ala Arg Leu Val Ala Met Gly Ser Ala Trp Pro
      100             105             110
Trp Leu Leu His Ser Val Arg Leu Lys Asp Arg Glu Asp Ala Asp Ile
      115             120             125
Gln Arg Glu Asp Pro Gln Ala Arg Pro Leu Glu Gly Ser Ser Ser Glu
      130             135             140
Asp Ser Pro Pro Glu Gly Gln Ala Pro Pro Ser His Ser Pro Arg Gly
      145             150             155             160
Thr Lys Arg Arg Ala Ser Trp Ala Ser Glu Asn Gly Glu Thr Asp Ala
      165             170             175
Glu Gly Thr Gln Met Thr Pro Ala Lys Arg Pro Ala Leu Gln Asp Ser
      180             185             190
Asn Leu Ala Pro Ser Leu Gly Pro Gly Ala Glu Asp Gly Ala Glu Ala
      195             200             205
Gln Ala Pro Ser Pro Pro Pro Ala Leu Glu Asp Thr Ala Ala Ala Gly
      210             215             220
Ala Ala Gln Glu Asp Gln Glu Gly Val Gly Glu Phe Ser Ser Pro Gly
      225             230             235             240
Gln Glu Gln Leu Ser Gly Gln Ala Gln Pro Pro Glu Gly Ser Glu Asp
      245             250             255

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Pro Arg Gly Thr Ala Arg Leu Val Pro His Pro Thr Ser Pro His Pro
 260 265 270
 Gly Phe Pro Ser Pro Pro Pro
 275

<210> 4935

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4935

Met Pro Ser Arg Ile Leu Asp Lys Glu Leu Leu Ser Gly Ile Pro Asp
 1 5 10 15
 Thr Glu Arg Leu Ser Glu Val Val Asp Asn Arg Ala Pro Gln Arg Asp
 20 25 30
 Pro Thr His Arg Ala Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln
 35 40 45
 Arg Asp Pro Thr His Arg Ala Pro Gln Arg Asp Pro Thr His Arg Ala
 50 55 60
 Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Asp Pro Thr His
 65 70 75 80
 Arg Pro Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Asp Pro
 85 90 95
 Thr His Arg Ala Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg
 100 105 110
 Gly Pro Arg His Arg Ala Pro Gln Arg Ser Pro Arg His Arg Ala Pro
 115 120 125
 Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Gly Pro Arg His Arg
 130 135 140
 Ala Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Gly Pro Arg
 145 150 155 160
 His Arg Ala Pro Gln Arg Gly Pro Thr His Arg Ala Pro Gln Arg Gly
 165 170 175
 Pro Arg His Arg Ala Pro Gln Arg Gly Pro Arg His Arg Ala Pro Gln
 180 185 190

Arg Gly Pro Thr His Arg Ala Pro Gln Arg Asp Pro Gly Trp Arg Ala
 195 200 205
 Pro Gln Arg Gly Pro Thr His Arg Ala Pro Gln Arg Ile Leu Asp Ala
 210 215 220
 Glu Pro Val Ser Gly Phe Leu Asp Ala Glu Ser Leu Ser Gly Ile Leu
 225 230 235 240
 Val Val Glu Arg Leu Ser Gly Ile Leu Asp Ala Glu Arg Leu Ser Gly
 245 250 255
 Ile Leu Asp Thr Glu Arg Leu Ser Leu Val Leu His Thr Glu Arg Leu
 260 265 270
 Ser Gly Ile Leu Val Gly Glu Arg Leu Ser Gly Val Leu His Thr Glu
 275 280 285
 Arg Leu Ser Gly Ile Leu Val Gly Glu Arg Leu Ser Gly Ile Leu Asp
 290 295 300
 Thr Glu Arg Leu Ser Gly Ile Leu Asp Thr Glu Pro Leu Ser Glu Ser
 305 310 315 320
 Gln Ile His Ser Ala
 325

<210> 4936

<211> 378

<212> PRT

<213> Homo sapiens

<400> 4936

Met Met Leu Ser Arg Lys Leu Pro Val His Val Asp Asp Pro Leu Ser
 1 5 10 15
 Thr Thr Leu Phe Ser Ser Gln Leu Asn Arg Arg Ile Ser Asn Met Asp
 20 25 30
 Asp Lys Val Tyr Lys Met Ser Arg Ala Leu Ala Glu Ile Lys Lys Arg
 35 40 45
 Phe Gln Lys Thr Val Thr Gln Phe Ile Asn Ser Ile Leu Leu Ala Ala
 50 55 60
 Gly Leu Phe Thr Ile Glu Tyr Pro Thr Lys Lys Glu Glu Glu Glu Phe
 65 70 75 80

Val Arg Phe Lys Met Arg Ser Arg Thr His Pro Glu Arg Leu Pro Lys
 85 90 95
 Leu Ser Leu Tyr Ser Gly Glu Ser Leu Leu Arg Ser Gln Ser Gly His
 100 105 110
 Leu Glu Ser Ser Ile Ala Glu Thr Leu Lys Asp Glu Pro Glu Ser Ala
 115 120 125
 Pro Val Ser Pro Val Arg Lys Thr Thr Lys Ile His Thr Lys Ala Lys
 130 135 140
 Val Thr Ser Arg Gly Lys Ala Arg Glu Gly Arg Ser Pro Thr Arg Trp
 145 150 155 160
 Ala Ala Leu Pro Ser Asp Cys Pro Leu Val Leu Arg Lys Leu Met Leu
 165 170 175
 Lys Glu Asp Thr Arg Ala Gly Cys Lys Cys Leu Val Lys Ala Pro Leu
 180 185 190
 Val Ser Asp Val Glu Leu Glu Arg Phe Leu Leu Ala Pro Arg Asp Pro
 195 200 205
 Ser Gln Val Leu Val Phe Gly Ile Ile Ser Ser Gln Asn Tyr Thr Ser
 210 215 220
 Thr Gly Gln Leu Gln Trp Leu Leu Asn Thr Leu Tyr Asn His Gln Gln
 225 230 235 240
 Arg Gly Arg Gly Ser Pro Cys Ile Gln Cys Arg Tyr Asp Ser Tyr Arg
 245 250 255
 Leu Leu Gln Tyr Asp Leu Asp Ser Pro Leu Gln Glu Asp Pro Pro Leu
 260 265 270
 Met Val Lys Lys Asn Ser Val Val Gln Gly Met Ile Leu Met Phe Ala
 275 280 285
 Gly Gly Lys Leu Ile Phe Gly Gly Arg Val Leu Asn Gly Tyr Gly Leu
 290 295 300
 Ser Lys Gln Asn Leu Leu Lys Gln Ile Phe Arg Ser Gln Gln Asp Tyr
 305 310 315 320
 Lys Met Gly Tyr Phe Leu Pro Asp Asp Tyr Lys Phe Ser Val Pro Asn
 325 330 335
 Ser Val Leu Ser Leu Glu Asp Ser Glu Ser Val Lys Lys Ala Glu Ser
 340 345 350
 Glu Asp Ile Gln Gly Ser Ser Ser Ser Leu Ala Leu Glu Asp Tyr Val
 355 360 365

Glu Lys Glu Leu Ser Leu Glu Ala Glu Lys

370

375

<210> 4937

<211> 455

<212> PRT

<213> Homo sapiens

<400> 4937

Met Gly Val Ile Ile Ser Gly Ser Leu Pro Pro Phe Ser Ser Pro Leu

1

5

10

15

Gln Val Gly Pro Val Ser Leu Leu Ala Ile Gly Val Leu Thr Val His

20

25

30

Cys Met Val Ile Leu Leu Asn Cys Ala Gln His Leu Ser Gln Arg Leu

35

40

45

Gln Lys Thr Phe Val Asn Tyr Gly Glu Ala Thr Met Tyr Gly Leu Glu

50

55

60

Thr Cys Pro Asn Thr Trp Leu Arg Ala His Ala Val Trp Gly Arg Trp

65

70

75

80

Asn Leu Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Lys Ile Ser Ala

85

90

95

His Cys Asn Pro His Leu Gln Gly Ser Ser Asn Ser Pro Ala Gln Ala

100

105

110

Ser Arg Val Ala Gly Ile Tyr Arg Tyr Thr Val Ser Phe Leu Leu Val

115

120

125

Ile Thr Gln Leu Gly Phe Cys Ser Val Tyr Phe Met Phe Met Ala Asp

130

135

140

Asn Leu Gln Gln Met Val Glu Lys Ala His Val Thr Ser Asn Ile Cys

145

150

155

160

Gln Pro Arg Glu Ile Leu Thr Leu Thr Pro Ile Leu Asp Ile Arg Phe

165

170

175

Tyr Met Leu Ile Ile Leu Pro Phe Leu Ile Leu Leu Val Phe Ile Gln

180

185

190

Asn Leu Lys Val Leu Ser Val Phe Ser Thr Leu Ala Asn Ile Thr Thr

195

200

205

Leu Gly Ser Met Ala Leu Ile Phe Glu Tyr Ile Met Glu Gly Ile Pro
 210 215 220
 Tyr Pro Ser Asn Leu Pro Leu Met Ala Asn Trp Lys Thr Phe Leu Leu
 225 230 235 240
 Phe Phe Gly Thr Ala Ile Phe Thr Phe Glu Gly Val Gly Met Val Leu
 245 250 255
 Pro Leu Lys Asn Gln Met Lys His Pro Gln Gln Phe Ser Phe Val Leu
 260 265 270
 Tyr Leu Gly Met Ser Ile Val Ile Ile Leu Tyr Ile Leu Leu Gly Thr
 275 280 285
 Leu Gly Tyr Met Lys Phe Gly Ser Asp Thr Gln Ala Ser Ile Thr Leu
 290 295 300
 Asn Leu Pro Asn Cys Trp Leu Tyr Gln Ser Val Lys Leu Met Tyr Ser
 305 310 315 320
 Ile Gly Ile Phe Phe Thr Tyr Ala Leu Gln Phe His Val Pro Ala Glu
 325 330 335
 Ile Ile Ile Pro Phe Ala Ile Ser Gln Val Ser Glu Ser Trp Ala Leu
 340 345 350
 Phe Val Asp Leu Ser Val Arg Ser Ala Leu Val Cys Leu Thr Cys Val
 355 360 365
 Ser Ala Ile Leu Ile Pro Arg Leu Asp Leu Val Ile Ser Leu Val Gly
 370 375 380
 Ser Val Ser Ser Ser Ala Leu Ala Leu Ile Ile Pro Ala Leu Leu Glu
 385 390 395 400
 Ile Val Ile Phe Tyr Ser Glu Asp Met Ser Cys Val Thr Ile Ala Lys
 405 410 415
 Asp Ile Met Ile Ser Ile Val Gly Leu Leu Gly Cys Ile Phe Gly Thr
 420 425 430
 Tyr Gln Ala Leu Tyr Glu Leu Pro Gln Pro Ile Ser His Ser Met Ala
 435 440 445
 Asn Ser Thr Gly Val His Ala
 450 455

<210> 4938

<211> 162

<212> PRT

<213> Homo sapiens

<400> 4938

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Met Ser Ile Thr Arg Leu His Glu Gln Lys Leu Val Gln His Val Val
  1             5             10            15
Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly Leu Pro Arg Thr
      20             25            30
Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu Val Ser Ser Pro
      35             40            45
Ala Gly Thr Gln Gly Leu His Gly Gln Ala Gly Pro Thr His Cys Ala
      50             55            60
Leu Leu Pro Leu Gly Leu Tyr Leu Leu Arg Ser Gln Gln Gly Val Arg
      65             70            75            80
Ala Gly Val Arg Cys Asp Gly Ala His Cys Pro Pro Gln Thr Pro Asp
      85             90            95
Arg Pro Asp Leu Pro Gln Val Trp Asp Pro Ala Ala Gly His His Cys
      100            105            110
Ala Leu Trp Gly Glu Gly Asp Val Gly Ala Ala Ser Glu Leu Gly Ser
      115            120            125
Gly Asp Arg Gly Cys Gln Gln Ser Arg His His Pro Val Ser Arg Val
      130            135            140
Gln Pro Glu Gly Ser Lys Glu Val Pro Thr Pro Leu Val His Asp Gln
      145            150            155            160
Ala Pro

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<210> 4939

<211> 567

<212> PRT

<213> Homo sapiens

<400> 4939

```

Met Asp Asp Lys Asp Ile Asp Lys Glu Leu Arg Gln Lys Leu Asn Phe
  1             5             10            15

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Ser Tyr Cys Glu Glu Thr Glu Ile Glu Gly Gln Lys Lys Val Glu Glu
 20 25 30
 Ser Arg Glu Ala Ser Ser Gln Thr Pro Glu Lys Gly Glu Val Gln Asp
 35 40 45
 Ser Glu Ala Lys Gly Thr Pro Pro Trp Thr Pro Leu Ser Asn Val His
 50 55 60
 Glu Leu Asp Thr Ser Ser Glu Lys Asp Lys Glu Ser Pro Asp Gln Ile
 65 70 75 80
 Leu Arg Thr Pro Val Ser His Pro Leu Lys Cys Pro Glu Thr Pro Ala
 85 90 95
 Gln Pro Asp Ser Arg Ser Lys Leu Leu Pro Ser Asp Ser Pro Ser Thr
 100 105 110
 Pro Lys Thr Met Leu Ser Arg Leu Val Ile Ser Pro Thr Gly Lys Leu
 115 120 125
 Pro Ser Arg Gly Pro Lys His Leu Lys Leu Thr Pro Ala Pro Leu Lys
 130 135 140
 Asp Glu Met Thr Ser Leu Ala Leu Val Asn Ile Asn Pro Phe Thr Pro
 145 150 155 160
 Glu Ser Tyr Lys Lys Leu Phe Leu Gln Ser Gly Gly Lys Arg Lys Ile
 165 170 175
 Arg Gly Asp Leu Glu Glu Ala Gly Pro Glu Glu Gly Lys Gly Gly Leu
 180 185 190
 Pro Ala Lys Arg Cys Val Leu Arg Glu Thr Asn Met Ala Ser Arg Tyr
 195 200 205
 Glu Lys Glu Phe Leu Glu Val Glu Lys Ile Gly Val Gly Glu Phe Gly
 210 215 220
 Thr Val Tyr Lys Cys Ile Lys Arg Leu Asp Gly Cys Val Tyr Ala Ile
 225 230 235 240
 Lys Arg Ser Met Lys Thr Phe Thr Glu Leu Ser Asn Glu Asn Ser Ala
 245 250 255
 Leu His Glu Val Tyr Ala His Ala Val Leu Gly His His Pro His Val
 260 265 270
 Val Arg Tyr Tyr Ser Ser Trp Ala Glu Asp Asp His Met Ile Ile Gln
 275 280 285
 Asn Glu Tyr Cys Asn Gly Gly Ser Leu Gln Ala Ala Ile Ser Glu Asn
 290 295 300

Thr Lys Ser Gly Asn His Phe Glu Glu Pro Lys Leu Lys Asp Ile Leu
 305 310 315 320
 Leu Gln Ile Ser Leu Gly Leu Asn Tyr Ile His Asn Ser Ser Met Val
 325 330 335
 His Leu Asp Ile Lys Pro Ser Asn Ile Phe Ile Cys His Lys Val Gln
 340 345 350
 Ser Glu Ser Ser Gly Val Ile Glu Glu Val Glu Asn Glu Ala Asp Trp
 355 360 365
 Phe Leu Ser Ala Asn Val Met Tyr Lys Ile Gly Asp Leu Gly His Ala
 370 375 380
 Thr Ser Ile Asn Lys Pro Lys Val Glu Glu Gly Asp Ser Arg Phe Leu
 385 390 395 400
 Ala Asn Glu Ile Leu Gln Glu Asp Tyr Arg His Leu Pro Lys Ala Asp
 405 410 415
 Ile Phe Ala Leu Gly Leu Thr Ile Ala Val Ala Ala Gly Ala Glu Ser
 420 425 430
 Leu Pro Thr Asn Gly Ala Ala Trp His His Ile Arg Lys Gly Asn Phe
 435 440 445
 Pro Asp Val Pro Gln Glu Leu Ser Glu Ser Phe Ser Ser Leu Leu Lys
 450 455 460
 Asn Met Ile Gln Pro Asp Ala Glu Gln Arg Pro Ser Ala Ala Ala Leu
 465 470 475 480
 Ala Arg Asn Thr Val Leu Arg Pro Ser Leu Gly Lys Thr Glu Glu Leu
 485 490 495
 Gln Gln Gln Leu Asn Leu Glu Lys Phe Lys Thr Ala Thr Leu Glu Arg
 500 505 510
 Glu Leu Arg Glu Ala Gln Gln Ala Gln Ser Pro Gln Gly Tyr Thr His
 515 520 525
 Tyr Gly Asp Thr Gly Val Ser Gly Thr His Thr Gly Ser Arg Ser Thr
 530 535 540
 Lys Arg Leu Val Gly Gly Lys Ser Ala Arg Ser Ser Ser Phe Thr Ser
 545 550 555 560
 Gly Glu Arg Glu Pro Leu His
 565

11500

<210> 4940

<211> 140

<212> PRT

<213> Homo sapiens

<400> 4940

Met Asp Phe Ile Val Ala Ala Ser Asn Leu Arg Ala Glu Asn Tyr Asp

1 5 10 15

Ile Pro Ser Ala Asp Arg His Lys Ser Lys Leu Ile Ala Gly Lys Ile

20 25 30

Ile Pro Ala Ile Ala Thr Thr Thr Ala Ala Val Val Gly Leu Val Cys

35 40 45

Leu Glu Leu Tyr Lys Val Val Gln Gly His Arg Gln Leu Asp Ser Tyr

50 55 60

Lys Asn Gly Phe Leu Asn Leu Ala Leu Pro Phe Phe Gly Phe Ser Glu

65 70 75 80

Pro Leu Ala Ala Pro Arg His Gln Tyr Tyr Asn Gln Glu Trp Thr Leu

85 90 95

Trp Asp Arg Phe Glu Val Gln Gly Leu Gln Pro Asn Gly Glu Glu Met

100 105 110

Thr Leu Lys Gln Phe Leu Asp Tyr Phe Lys Val Arg Pro Leu Pro Tyr

115 120 125

Ser Val Thr Pro Pro Gln Gly Ala Arg Cys Thr Arg

130 135 140

<210> 4941

<211> 477

<212> PRT

<213> Homo sapiens

<400> 4941

Met Ser Ala Ala Pro Gly Leu Leu His Gln Glu Leu Ser Cys Pro Leu

1 5 10 15

Cys Leu Gln Leu Phe Asp Ala Pro Val Thr Ala Glu Cys Gly His Ser

	20		25		30
Phe	Cys	Arg	Ala	Cys	Leu
	35		40		45
Gly	Thr	Val	Leu	Cys	Pro
	50		55		60
Leu	Ser	Thr	Asn	Leu	Gln
	65		70		75
Val	Pro	Gln	Gly	His	Cys
	85		90		95
Cys	Glu	Gln	Asp	Arg	Ala
	100		105		110
Ser	His	Arg	Gly	His	Arg
	115		120		125
Leu	Lys	Thr	Gln	Leu	Pro
	130		135		140
Met	Arg	Lys	Glu	Lys	Ser
	145		150		155
Val	Glu	Glu	Thr	Val	Arg
	165		170		175
Gly	Lys	Met	Arg	Val	Phe
	180		185		190
Glu	Ala	Glu	Arg	Val	Arg
	195		200		205
Leu	Gly	Ser	Leu	Asn	Ser
	210		215		220
Val	Leu	Glu	Glu	Val	Ala
	225		230		235
Tyr	Cys	Leu	Val	Thr	Ser
	245		250		255
Pro	Pro	Ala	Arg	Leu	Asp
	260		265		270
Lys	Phe	Gln	Val	Trp	Arg
	275		280		285
Glu	Glu	Leu	Thr	Phe	Asp
	290		295		300
Ser	Ser	Ser	Gly	Arg	Arg

305 310 315 320
 Ala Gly Glu Asp Pro Arg Gln Phe Asp Lys Ala Val Ala Val Val Ala
 325 330 335
 His Gln Gln Leu Ser Glu Gly Glu His Tyr Trp Glu Val Asp Val Gly
 340 345 350
 Asp Lys Pro Arg Trp Ala Leu Gly Val Ile Ala Ala Glu Ala Pro Arg
 355 360 365
 Arg Gly Arg Leu His Ala Val Pro Ser Gln Gly Leu Trp Leu Leu Gly
 370 375 380
 Leu Arg Glu Gly Lys Ile Leu Glu Ala His Val Glu Ala Lys Glu Pro
 385 390 395 400
 Arg Ala Leu Arg Ser Pro Glu Arg Arg Pro Thr Arg Ile Gly Leu Tyr
 405 410 415
 Leu Ser Phe Gly Asp Gly Val Leu Ser Phe Tyr Asp Ala Ser Asp Ala
 420 425 430
 Asp Ala Leu Val Pro Leu Phe Ala Phe His Glu Arg Leu Pro Arg Pro
 435 440 445
 Val Tyr Pro Phe Phe Asp Val Cys Trp His Asp Lys Gly Lys Asn Ala
 450 455 460
 Gln Pro Leu Leu Leu Val Gly Pro Glu Gly Ala Glu Ala
 465 470 475

<210> 4942

<211> 505

<212> PRT

<213> Homo sapiens

<400> 4942

Met Ala Val Ala Leu Asp Ser Gln Ile Asp Ala Pro Leu Glu Val Glu
 1 5 10 15
 Gly Cys Leu Ile Met Lys Val Glu Lys Asp Pro Glu Trp Ala Ser Glu
 20 25 30
 Pro Ile Leu Glu Gly Ser Asp Ser Ser Glu Thr Phe Arg Lys Cys Phe
 35 40 45
 Arg Gln Phe Cys Tyr Glu Asp Val Thr Gly Pro His Glu Ala Phe Ser

50	55	60
Lys Leu Trp Glu Leu Cys Cys Arg Trp Leu Lys Pro Glu Met Arg Ser		
65	70	75
Lys Glu Gln Ile Leu Glu Leu Leu Val Ile Glu Gln Phe Leu Thr Ile		
85	90	95
Leu Pro Glu Lys Ile Gln Ala Trp Ala Gln Lys Gln Cys Pro Gln Ser		
100	105	110
Gly Glu Glu Ala Val Ala Leu Val Val His Leu Glu Lys Glu Thr Gly		
115	120	125
Arg Leu Arg Gln Gln Val Ser Ser Pro Val His Arg Glu Lys His Ser		
130	135	140
Pro Leu Gly Ala Ala Trp Glu Val Ala Asp Phe Gln Pro Glu Gln Val		
145	150	155
Glu Thr Gln Pro Arg Ala Val Ser Arg Glu Glu Pro Gly Ser Leu His		
165	170	175
Ser Gly His Gln Glu Gln Leu Asn Arg Lys Arg Glu Arg Arg Pro Leu		
180	185	190
Pro Lys Asn Ala Arg Pro Ser Pro Trp Val Pro Ala Leu Ala Asp Glu		
195	200	205
Trp Asn Thr Leu Asp Gln Glu Val Thr Thr Thr Arg Leu Pro Ala Gly		
210	215	220
Ser Gln Glu Pro Val Lys Asp Val His Val Ala Arg Gly Phe Ser Tyr		
225	230	235
Arg Lys Ser Val His Gln Ile Pro Ala Gln Arg Asp Leu Tyr Arg Asp		
245	250	255
Phe Arg Lys Glu Asn Val Gly Asn Val Val Ser Leu Gly Ser Ala Val		
260	265	270
Ser Thr Ser Asn Lys Ile Thr Arg Leu Glu Gln Arg Lys Glu Pro Trp		
275	280	285
Thr Leu Gly Leu His Ser Ser Asn Lys Arg Ser Ile Leu Arg Ser Asn		
290	295	300
Tyr Val Lys Glu Lys Ser Val His Ala Ile Gln Val Pro Ala Arg Ser		
305	310	315
Ala Gly Lys Thr Trp Arg Glu Gln Gln Gln Trp Gly Leu Glu Asp Glu		
325	330	335
Lys Ile Ala Gly Val His Trp Ser Tyr Glu Glu Thr Lys Thr Phe Leu		

340 345 350
 Ala Ile Leu Lys Glu Ser Arg Phe Tyr Glu Thr Leu Gln Ala Cys Pro
 355 360 365
 Arg Asn Ser Gln Val Tyr Gly Ala Val Ala Glu Trp Leu Arg Glu Cys
 370 375 380
 Gly Phe Leu Arg Thr Pro Glu Gln Cys Arg Thr Lys Phe Lys Ser Leu
 385 390 395 400
 Gln Lys Ser Tyr Arg Lys Val Arg Asn Gly His Met Leu Glu Pro Cys
 405 410 415
 Ala Phe Phe Glu Asp Met Asp Ala Leu Leu Asn Pro Ala Ala Arg Ala
 420 425 430
 Pro Ser Thr Asp Lys Pro Lys Glu Met Ile Pro Val Pro Arg Leu Lys
 435 440 445
 Arg Ile Ala Ile Ser Ala Lys Glu His Ile Ser Leu Val Glu Glu Glu
 450 455 460
 Glu Ala Ala Glu Asp Ser Asp Asp Asp Glu Ile Gly Ile Glu Phe Ile
 465 470 475 480
 Arg Lys Ser Glu Ile His Gly Ala Pro Val Leu Phe Gln Asn Leu Ser
 485 490 495
 Gly Lys Asn Cys Ala Leu Phe Leu Trp
 500 505

<210> 4943

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4943

Met Pro Pro Leu Ala Arg Ser Pro Arg Ala Ser Ile Val Ala Leu Arg
 1 5 10 15
 Lys Met Ile Thr Ser Phe Leu Ala Leu Trp Trp His Val Cys Val Cys
 20 25 30
 Ile Cys Ile Tyr Thr His Ile Tyr Ile Asn Thr Gln Thr His Ile Tyr
 35 40 45
 Thr Asn Thr Arg Ile His Phe Arg Pro Gln Phe Leu Ala His Asn Ser

11505

50 55 60
 His Ser Pro Cys Tyr Thr Leu Leu Leu Gln His Trp Val Cys Gln Ala
 65 70 75 80
 Ser Gly Asp Asn His Ser Asn Leu Leu Pro Phe Leu Leu Pro Ala Gln
 85 90 95
 Asp Arg Thr Leu Ile Phe Pro Thr Phe Leu Met Val Gly His Lys Thr
 100 105 110
 His Ser Arg Asp Gly Pro Thr Pro Tyr Pro Ala Arg Arg Asn Ala Ala
 115 120 125
 Val Met Lys Leu Pro
 130

<210> 4944

<211> 502

<212> PRT

<213> Homo sapiens

<400> 4944

Met Val Gln Tyr His Gly Ala Glu Ala Ala Gln Arg Phe Ile Leu Thr
 1 5 10 15
 Val Met Asn Met Val Tyr Asn Met Phe Gln His Gln Ser Leu Gly Ile
 20 25 30
 Lys Ile Asn Ile Gln Val Thr Lys Leu Val Leu Leu Arg Gln Arg Pro
 35 40 45
 Ala Lys Leu Ser Ile Gly His His Gly Glu Arg Ser Leu Glu Ser Phe
 50 55 60
 Cys His Trp Gln Asn Glu Glu Tyr Gly Gly Ala Arg Tyr Leu Gly Asn
 65 70 75 80
 Asn Gln Val Pro Gly Gly Lys Asp Asp Pro Pro Leu Val Asp Ala Ala
 85 90 95
 Val Phe Val Thr Arg Thr Asp Phe Cys Val His Lys Asp Glu Pro Cys
 100 105 110
 Asp Thr Val Gly Ile Ala Tyr Leu Gly Gly Val Cys Ser Ala Lys Arg
 115 120 125

Lys Cys Val Leu Ala Glu Asp Asn Gly Leu Asn Leu Ala Phe Thr Ile
 130 135 140
 Ala His Glu Leu Gly His Asn Leu Gly Met Asn His Asp Asp Asp His
 145 150 155 160
 Ser Ser Cys Ala Gly Arg Ser His Ile Met Ser Gly Glu Trp Val Lys
 165 170 175
 Gly Arg Asn Pro Ser Asp Leu Ser Trp Ser Ser Cys Ser Arg Asp Asp
 180 185 190
 Leu Glu Asn Phe Leu Lys Ser Lys Val Ser Thr Cys Leu Leu Val Thr
 195 200 205
 Asp Pro Arg Ser Gln His Thr Val Arg Leu Pro His Lys Leu Pro Gly
 210 215 220
 Met His Tyr Ser Ala Asn Glu Gln Cys Gln Ile Leu Phe Gly Met Asn
 225 230 235 240
 Ala Thr Phe Cys Arg Asn Met Glu His Leu Met Cys Ala Gly Leu Trp
 245 250 255
 Cys Leu Val Glu Gly Asp Thr Ser Cys Lys Thr Lys Leu Asp Pro Pro
 260 265 270
 Leu Asp Gly Thr Glu Cys Gly Ala Asp Lys Trp Cys Arg Ala Gly Glu
 275 280 285
 Cys Val Ser Lys Thr Pro Ile Pro Glu His Val Asp Gly Asp Trp Ser
 290 295 300
 Pro Trp Gly Ala Trp Ser Met Cys Ser Arg Thr Cys Gly Thr Gly Ala
 305 310 315 320
 Arg Phe Arg Gln Arg Lys Cys Asp Asn Pro Pro Pro Gly Pro Gly Gly
 325 330 335
 Thr His Cys Pro Gly Ala Ser Val Glu His Ala Val Cys Glu Asn Leu
 340 345 350
 Pro Cys Pro Lys Gly Leu Pro Ser Phe Arg Asp Gln Gln Cys Gln Ala
 355 360 365
 His Asp Arg Leu Ser Pro Lys Lys Lys Gly Leu Leu Thr Ala Val Val
 370 375 380
 Val Asp Asp Lys Pro Cys Glu Leu Tyr Cys Ser Pro Leu Gly Lys Glu
 385 390 395 400
 Ser Pro Leu Leu Val Ala Asp Arg Val Leu Asp Gly Thr Pro Cys Gly
 405 410 415

Pro Tyr Glu Thr Asp Leu Cys Val His Gly Lys Cys Gln Lys Ile Gly
 420 425 430
 Cys Asp Gly Ile Ile Gly Ser Ala Ala Lys Glu Asp Arg Cys Gly Val
 435 440 445
 Cys Ser Gly Asp Gly Lys Thr Cys His Leu Ala Lys Gly Asp Phe Ser
 450 455 460
 His Ala Arg Gly Thr Gly Tyr Ile Glu Ala Ala Val Ile Pro Ala Gly
 465 470 475 480
 Ala Arg Arg Ile Arg Val Val Glu Asp Lys Pro Ala His Ser Phe Leu
 485 490 495
 Gly Lys Thr Gln Met Thr
 500

<210> 4945

<211> 356

<212> PRT

<213> Homo sapiens

<400> 4945

Met Val Ile Lys Gln Met Leu Ile Arg Asp Pro Phe Pro Ser Leu Ser
 1 5 10 15
 Leu Ala Gln Ile Ala Met Asp Arg Met Lys Lys Ile Lys Arg Gln Leu
 20 25 30
 Ser Met Thr Leu Arg Gly Gly Arg Gly Ile Asp Lys Thr Asn Gly Ala
 35 40 45
 Pro Glu Gln Ile Gly Leu Asp Glu Ser Gly Gly Gly Gly Gly Ser Asp
 50 55 60
 Pro Gly Glu Ala Pro Thr Arg Ala Ala Pro Gly Glu Leu Arg Ser Ala
 65 70 75 80
 Arg Gly Pro Leu Ser Ser Ala Pro Glu Ile Val His Glu Asp Leu Lys
 85 90 95
 Met Gly Ser Asp Gly Glu Ser Asp Gln Ala Ser Ala Thr Ser Ser Asp
 100 105 110
 Glu Val Gln Ser Pro Val Arg Val Arg Met Arg Asn His Pro Pro Arg
 115 120 125

Lys Ile Ser Thr Glu Asp Ile Asn Lys Arg Leu Ser Leu Pro Ala Asp
 130 135 140
 Ile Arg Leu Pro Glu Gly Tyr Leu Glu Lys Leu Thr Leu Asn Ser Pro
 145 150 155 160
 Ile Phe Asp Lys Pro Leu Ser Arg Arg Leu Arg Arg Val Ser Leu Ser
 165 170 175
 Glu Ile Gly Phe Gly Lys Leu Glu Thr Tyr Ile Lys Leu Asp Lys Leu
 180 185 190
 Gly Glu Gly Thr Tyr Ala Thr Val Tyr Lys Gly Lys Ser Lys Leu Thr
 195 200 205
 Asp Asn Leu Val Ala Leu Lys Glu Ile Arg Leu Glu His Glu Glu Gly
 210 215 220
 Ala Pro Cys Thr Ala Ile Arg Glu Val Ser Leu Leu Lys Asp Leu Lys
 225 230 235 240
 His Ala Asn Ile Val Thr Leu His Asp Ile Ile His Thr Glu Lys Ser
 245 250 255
 Leu Thr Leu Val Phe Glu Tyr Leu Asp Lys Asp Leu Lys Gln Tyr Leu
 260 265 270
 Asp Asp Cys Gly Asn Ile Ile Asn Met His Asn Val Lys Val Gly Val
 275 280 285
 Gly Gln Glu Ala Gly Ala Gln Gly Gly Pro His Ser Pro Thr Pro Thr
 290 295 300
 His Lys Ser Pro Arg Asn Gly Leu Phe Pro Leu Ala Phe Phe Ala Arg
 305 310 315 320
 Ser Pro Trp Arg Ala Leu Gly Pro Cys Pro Leu Leu Cys Asp Lys Ala
 325 330 335
 Leu Gly Leu Val Ser Val Phe Gly Arg Gly Ala Val Pro Ala Gly Gly
 340 345 350
 Arg Ala Ser Gly
 355

<210> 4946

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4946

Met Met Ile Thr Ala His Tyr Ser Leu Asp Phe Thr Gly Ser Gly Asp
 1 5 10 15
 Phe Pro Thr Ser Ala Ser Arg Val Ala Gly Thr Thr Gly Thr His His
 20 25 30
 His Thr Gln Leu Ile Phe Cys Ile Phe Ser Arg Gly Arg Val Leu Pro
 35 40 45
 Cys Cys Pro Gly Trp Ser Arg Thr Pro Gly Leu Lys Gln Ser Ala His
 50 55 60
 Leu Gly Leu Pro Lys Cys Trp Ile Thr Gly Met Ser Arg Cys Ala Gln
 65 70 75 80
 Pro Lys Ile Ile Phe Ile Leu Phe Ile Gly Ser Ser Phe Ile Ala Leu
 85 90 95
 Glu Ile Gln Ala Ala Arg Tyr Cys Asp Trp Cys Ile Trp Thr Tyr Leu
 100 105 110
 Trp Ser Lys Thr Gly Thr His Gln Ile Val Ala Leu Ala Asn
 115 120 125

<210> 4947

<211> 141

<212> PRT

<213> Homo sapiens

<400> 4947

Met Leu Leu Trp Thr Leu Gln Tyr Lys Cys Leu Thr Lys Ser Leu Leu
 1 5 10 15
 Leu Ile Leu Trp Gly Ile Tyr Ile Lys Val Glu Leu Leu Asp His Leu
 20 25 30
 Val Val Leu His Phe Thr Phe Phe Arg Asp Cys His Ile Val Phe His
 35 40 45
 Ser Asp Cys Thr Ile Leu Tyr Ser Leu Arg Gln Tyr Ala Arg Val Leu
 50 55 60
 Ile Ser Pro Tyr Ser His Gln His Leu Phe Ser Val Leu Arg Ile Ile
 65 70 75 80

Ala Ile Leu Arg Gly Val Met Trp Tyr Leu Ile Glu Val Ser Ile Cys
 85 90 95
 Ile Ser Leu Met Ile Ser Asp Val Glu Cys Phe Phe Met Tyr Phe Leu
 100 105 110
 Ala Ile Cys Ile Ser Pro Leu Lys Lys Tyr Gln Tyr Gln Val Ile Cys
 115 120 125
 Ser Cys Leu Ile Glu Leu Leu Cys Cys Gly Gly Phe Tyr
 130 135 140

<210> 4948

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4948

Met Gly Phe His Tyr Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser
 1 5 10 15
 Gly Asp Pro Leu Ala Ser Ala Phe Gln Ser Ala Gly Ile Ile Gly Val
 20 25 30
 Ser His Arg Thr Trp Gly Gly Tyr Cys Leu Lys Lys Lys Ser Pro Asp
 35 40 45
 Ser Asp Pro Leu Ser Thr Trp Arg Thr Ser Thr Gly Arg Lys Gln Met
 50 55 60
 Leu Gln Ile Phe Lys Tyr Pro Asp Gly Phe Gly Ser Gln Gly Glu Arg
 65 70 75 80
 Asp Leu Thr Ser Val Tyr His Pro Thr Leu Ser Thr Lys Val Thr Ile
 85 90 95
 Asn Thr Lys Ser Ile Ala Trp Ala Thr Gly Lys Lys Ala Phe Ile Cys
 100 105 110
 Ile Asn Val Cys Val Tyr Ile His Cys Phe Phe Phe Phe Lys Arg Leu
 115 120 125
 Gly Leu Pro Leu Ser Pro Arg Leu Glu His Ser Gly Thr Ile Ile Ala
 130 135 140
 His Cys Ser Leu Gln Arg Cys Gly
 145 150

<210> 4949

<211> 168

<212> PRT

<213> Homo sapiens

<400> 4949

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Met Tyr Pro Ser Asn Lys Lys Lys Lys Val Trp Arg Glu Glu Lys Glu
  1             5             10             15
Arg Leu Leu Lys Met Thr Leu Glu Glu Arg Arg Lys Glu Tyr Leu Arg
      20             25             30
Asp Tyr Ile Pro Leu Asn Ser Ile Leu Ser Trp Lys Glu Glu Met Lys
      35             40             45
Gly Lys Gly Gln Asn Asp Glu Glu Asn Ile Gln Glu Thr Ser Gln Val
      50             55             60
Lys Lys Ser Leu Thr Glu Lys Val Ser Leu Tyr Arg Gly Asp Ile Thr
      65             70             75             80
Leu Leu Glu Val Asp Ala Ile Val Asn Ala Ala Asn Ala Ser Leu Leu
              85             90             95
Gly Gly Gly Gly Val Asp Gly Cys Ile His Arg Ala Ala Gly Pro Cys
      100             105             110
Leu Leu Ala Glu Cys Arg Asn Leu Asn Gly Cys Asp Thr Gly His Ala
      115             120             125
Lys Ile Thr Cys Gly Tyr Asp Leu Pro Ala Lys Tyr Val Ile His Thr
      130             135             140
Val Gly Pro Ile Ala Arg Ala Ile Leu Met Val Pro Thr Arg Lys Thr
      145             150             155             160
Leu Gln Ile Ala Ile Asn His Leu
              165

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<210> 4950

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4950

Met Gly Leu Gly Gly Val Ser Arg Glu Ala Gly Leu Leu Leu Leu Ser
 1 5 10 15
 Ser Pro Cys Pro Asp Pro Ser Val Cys Leu Ser Asp Lys Pro Val Pro
 20 25 30
 Glu Glu Ser Glu Gly Pro Gly Ser Pro Pro Pro Tyr Lys Met Ile Gln
 35 40 45
 Thr Ile Gly Leu Ser Val Gly Ala Ala Val Ala Tyr Ile Ile Ala Val
 50 55 60
 Leu Gly Leu Met Phe Tyr Cys Lys Lys Arg Cys Lys Ala Lys Arg Leu
 65 70 75 80
 Gln Lys Gln Pro Glu Gly Glu Glu Pro Glu Met Glu Cys Leu Asn Gly
 85 90 95
 Gly Pro Leu Gln Asn Gly Gln Pro Ser Ala Glu Ile Gln Glu Glu Val
 100 105 110
 Ala Leu Thr Ser Leu Gly Ser Gly Pro Ala Ala Thr Asn Lys Arg His
 115 120 125
 Ser Thr Ser Asp Lys Met His Phe Pro Arg Ser Ser Leu Gln Pro Ile
 130 135 140
 Thr Thr Leu Gly Met Leu Pro
 145 150

<210> 4951

<211> 182

<212> PRT

<213> Homo sapiens

<400> 4951

Met Leu Pro Thr Ala Ala Gly Phe Ser Ile Trp Gly Gln Val Gly Ala
 1 5 10 15
 Ala Arg Glu Ala Pro Arg Cys Gln Thr Lys Ile Ser Ser Cys Ser Cys
 20 25 30
 Pro Thr Ser Ser Val Ser Ala Ala His Gly Pro Gly Pro Asn Glu Arg
 35 40 45

Ala Arg Gly Leu Gly Gly Leu Pro Asp Pro Ala Leu Ser Pro Arg Val
 50 55 60
 Pro Phe Gln Gly Tyr Ala Arg Ile Val Phe Ala Ile Ile Ser Phe Tyr
 65 70 75 80
 Phe Met Pro Cys Cys Pro Leu Thr Ala Ser Ser Phe Tyr Leu Leu Ser
 85 90 95
 Gly Leu Leu Asp Ala Phe Asp Gly His Ala Ala Arg Ala Leu Asn Gln
 100 105 110
 Gly Thr Arg Phe Gly Ala Met Leu Asp Met Leu Thr Asp Arg Cys Ser
 115 120 125
 Thr Met Cys Leu Leu Val Asn Leu Ala Leu Leu Tyr Pro Gly Ala Thr
 130 135 140
 Leu Phe Phe Gln Ile Ser Met Ser Leu Asp Val Ala Ser His Trp Leu
 145 150 155 160
 His Leu His Arg Ser Ala Ala Ile Leu Gly Ala Trp Ala Thr Trp Arg
 165 170 175
 His Tyr Ser Gly Val Gly
 180

<210> 4952

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4952

Met Gly Thr Leu Thr Phe His Leu Lys Ser Ser Phe Pro Gln Val Leu
 1 5 10 15
 Arg His Val Asn Gly Gln Asp Gln Ile Val Pro Gly Leu Tyr Ala Cys
 20 25 30
 Gly Glu Ala Ala Cys Ala Ser Val His Gly Ala Asn Arg Leu Gly Ala
 35 40 45
 Asn Ser Leu Leu Asp Leu Val Ala Phe Gly Arg Ala Cys Ala Pro Ser
 50 55 60
 Ile Glu Glu Ser Cys Arg Pro Gly Asp Lys Val Pro Pro Ile Lys Pro
 65 70 75 80

<211> 149

<212> PRT

<213> Homo sapiens

<400> 4953

Met Tyr Met Glu Pro Ser Ala Arg Ser Ala Gly Tyr Ser Pro Gln Gln
1 5 10 15
Lys Arg Leu Ser Lys Thr Arg Ile Pro Arg Leu Gln Ser Leu Thr Asp
20 25 30

Gly His Pro His Thr Ser Cys Phe Gln Gln His Gly His His Phe Gln
 100 105 110
 His His His His His His His Thr Pro His Pro Ala Val Pro Val Ser
 115 120 125
 Pro Ser Phe Ser Asp Pro Ala Cys Pro Val Glu Arg Pro Pro Gln Val
 130 135 140
 Gln Ala Pro Cys Gly Ala Asn Ser Ser Ser Gly Thr Ser Tyr His Glu
 145 150 155 160
 Gln Gln Ala Leu Pro Val Asp Leu Ser Asn Ser Gly Ile Arg Ser His
 165 170 175
 Gly Ser Gly Ser Phe His Gly Ala Ser Ala Phe Asp Pro Cys Cys Pro
 180 185 190
 Val Ser Ser Ser Arg Ala Ala Ile Phe Gly His Gln Ala Ala Ala Ala
 195 200 205
 Ala Pro Ser Gln Pro Leu Ser Ser Ile Asp Gly Tyr Gly Ser Ser Met
 210 215 220
 Val Ala Gln Pro Gln Pro Gln Pro Pro Pro Gln Pro Ser Leu Ser Ser
 225 230 235 240
 Cys Arg His Tyr Met Pro Pro Pro Tyr Ala Ser Leu Thr Arg Pro Leu
 245 250 255
 His His Gln Ala Ser Ala Cys Pro His Ser His Gly Asn Pro Pro Pro
 260 265 270
 Gln Thr Gln Pro Pro Pro Gln Val Asp Tyr Val Ile Pro His Pro Val
 275 280 285
 His Ala Phe His Ser Gln Ile Ser Ser His Ala Thr Ser His Pro Val
 290 295 300
 Ala Pro Pro Pro Pro Thr His Leu Ala Ser Thr Ala Ala Pro Ile Pro
 305 310 315 320
 Gln His Leu Pro Pro Thr His Gln Pro Ile Ser His His Ile Pro Ala
 325 330 335
 Thr Ala Pro Pro Ala Gln Arg Leu His Pro His Glu Val Met Gln Arg
 340 345 350
 Met Glu Val Gln Arg Arg Arg Met Met Gln His Pro Thr Gly Leu Phe
 355 360 365
 Val Phe Cys Val Ser Arg Arg Ala His Glu Arg Pro Pro Pro His Pro
 370 375 380

Met Val Ser Gly Met Gly Met Gly Asn Arg Asp Thr Asn Pro Asn Gly
 1 5 10 15
 Lys Pro Leu Ala Lys Gln Pro Pro Glu Phe Val Leu Ile Val Tyr Ser
 20 25 30
 Gln Ser Leu Ala Thr Ala His Thr Leu Phe Phe Ser Tyr Lys Gln Lys
 35 40 45
 Glu Leu Ser Leu Ser Ala Met Asn Pro Ala Ile Pro Arg Lys Lys Ala
 50 55 60
 Asn Ala Leu Ala Ser Ser Pro Val Arg Ala Thr His Ser Ile Ser Thr
 65 70 75 80
 Phe Cys Met Leu Lys Leu Cys His Arg Arg Arg Ala Ser Ala His Asp
 85 90 95
 Gln Phe Phe Phe Trp Ser Ile Gly Ser Phe Cys Leu Arg Ile Phe Val
 100 105 110
 Cys Val Tyr Leu
 115

<210> 4956

<211> 376

<212> PRT

<213> Homo sapiens

<400> 4956

Met Ala Asp Ser Arg Arg Val Ile Ile Ala Ser Trp Tyr Arg Thr Phe
 1 5 10 15
 Met Gly Ile Val Asn Leu Phe Gly Leu Glu Thr Lys Thr Cys Trp Asn
 20 25 30
 Val Thr Arg Ile Glu Pro Leu Asn Glu Val Gln Ser Cys Glu Gly Leu
 35 40 45
 Arg Asp Pro Ala Cys Phe Tyr Val Gly Val Ile Phe Ile Leu Asn Gly
 50 55 60
 Leu Met Met Gly Leu Phe Phe Ile Tyr Gly Thr Tyr Leu Ser Gly Thr
 65 70 75 80
 Glu Leu Gly Gly Leu Ile Thr Val Leu Cys Phe Phe Phe Asn His Gly
 85 90 95

Glu Ala Thr Cys Val Met Trp Thr Pro Pro Leu Arg Glu Ser Phe Ser
 100 105 110
 Tyr Pro Phe Leu Val Leu Gln Met Tyr Val Leu Thr Leu Ile Leu Arg
 115 120 125
 Thr Ser Ser Asn Asp Arg Arg Pro Phe Ile Ala Leu Cys Leu Ser Asn
 130 135 140
 Val Ala Phe Met Leu Pro Trp Gln Phe Ala Gln Phe Ile Leu Phe Thr
 145 150 155 160
 Gln Ile Ala Ser Leu Phe Pro Met Tyr Val Val Gly Tyr Ile Glu Pro
 165 170 175
 Ser Lys Phe Gln Lys Ile Ile Tyr Met Asn Met Ile Ser Val Thr Leu
 180 185 190
 Ser Phe Ile Leu Met Phe Gly Asn Ser Met Tyr Leu Ser Ser Tyr Tyr
 195 200 205
 Ser Ser Ser Leu Leu Met Thr Trp Ala Ile Ile Leu Lys Arg Asn Glu
 210 215 220
 Ile Gln Lys Leu Gly Val Ser Lys Leu Asn Cys Trp Leu Ile Gln Gly
 225 230 235 240
 Ser Ala Trp Trp Cys Gly Thr Ile Ile Leu Lys Phe Leu Thr Ser Lys
 245 250 255
 Ile Leu Gly Val Ser Asp His Ile Cys Leu Ser Asp Leu Ile Ala Ala
 260 265 270
 Gly Thr Leu Arg Tyr Thr Asp Phe Asp Thr Leu Lys Tyr Thr Cys Ser
 275 280 285
 Pro Glu Phe Asp Phe Met Glu Lys Ala Thr Leu Leu Ile Tyr Thr Lys
 290 295 300
 Thr Leu Leu Leu Pro Val Val Met Val Ile Thr Cys Phe Ile Phe Lys
 305 310 315 320
 Lys Thr Val Gly Asp Ile Ser Arg Val Leu Ala Thr Asn Val Tyr Leu
 325 330 335
 Arg Cys Cys Leu Cys Arg Cys His Ala Tyr Asn Gly Lys Cys Gln Ala
 340 345 350
 Val Tyr Thr Ser Ser His Cys Glu Ser Ser Thr Leu Arg Arg Cys Arg
 355 360 365
 Leu Glu Ala Trp Leu Gln His Ala
 370 375

<210> 4957

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4957

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Met Tyr Pro Ala Leu Leu Val Pro Ser Ser Ser Pro Ser Ser Val Phe
  1             5             10             15
Gly Val Pro Glu Thr Gly Phe Ser Gln Trp Pro Gly Pro Gln Gly Asn
             20             25             30
Cys Arg Val Ile Gln Ser Gly Ser Ala Ser Leu Gln Gly Pro Leu Pro
             35             40             45
Gly Arg Ala Ser Trp His Pro Ala Ile Gly Gly Pro Asp Thr Pro Ala
             50             55             60
Arg Asp Pro Ala Thr Gln Glu Val Pro Thr Pro Ser Gln Ser Asp Pro
             65             70             75             80
Gly Pro Arg Ala Asp Arg Ser Pro Pro Leu Lys Arg Leu Leu Pro Leu
             85             90             95
Tyr Pro Thr Pro Arg Asp Ser Phe His Ser Gly Ile Ser
             100             105

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<210> 4958

<211> 363

<212> PRT

<213> Homo sapiens

<400> 4958

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Met Pro Val Arg Thr Leu Phe Pro Glu Ser Trp Leu Trp Arg Lys Phe
  1             5             10             15
Thr Leu Pro Lys Ser Lys Ser Gly Ile Ser His Tyr Pro Ile Ser Val
             20             25             30
Lys Val Pro Asp Ser Ile Thr Thr Trp Gln Phe Val Val Val Ser Leu
             35             40             45

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Lys Ala Gly Gln Gly Leu Cys Val Ser Asp Pro Phe Glu Leu Thr Val
 50 55 60
 Met Lys Ser Phe Phe Val Asp Leu Lys Leu Pro Ser Ser Val Ile Arg
 65 70 75 80
 Asn Glu Gln Val Gln Ile Gln Ala Met Leu Tyr Asn Phe Arg Asp Arg
 85 90 95
 Gln Ala Lys Val Arg Val Glu Phe Pro His Lys Glu Thr Leu Cys Ser
 100 105 110
 Ala Ser Lys Pro Gly Ala Pro Ser His Gln Ala Gly Val Gln Ile Gln
 115 120 125
 Gln Thr Ser Tyr Ser Ile Val Leu Glu Pro Gln Gly Gln Thr Gln Thr
 130 135 140
 Lys Leu Val Pro Arg Gln Glu Phe Leu Asn Met Val Pro Asp Thr Glu
 145 150 155 160
 Ala Glu Val Phe Ile Ser Val Gln Gly Tyr Thr Gln Met Leu Thr His
 165 170 175
 Arg Ser Ser Asp Gly Thr Tyr His Thr Ser Lys Gly Asn Pro Gly Ser
 180 185 190
 Thr Trp Leu Thr Ser Tyr Val Phe Arg Val Phe Ala Leu Ala Tyr Ser
 195 200 205
 Met Met Thr Thr Gln Val Leu Ser Leu Ser Ser Leu Cys Asp Met Ala
 210 215 220
 Asn Trp Ile Ile Ile Asp Arg Gln Ala Glu Asp Gly His Phe Leu Glu
 225 230 235 240
 Lys Gly Pro Val Val Met Thr Ser Met Gln Asp Gly Tyr Gln Gly Ser
 245 250 255
 Glu Glu Asp Val Ser Leu Thr Ala Leu Val Leu Ile Ala Leu Asn Glu
 260 265 270
 Gly Lys Glu Leu Cys Arg Gln Lys Asn Leu Met Ala Ser Ile Glu Arg
 275 280 285
 Ala Arg Gly Phe Leu Glu Arg Lys Leu Pro Asp Ile Gln Thr Thr Phe
 290 295 300
 Ala Val Ala Ile Ala Ser Tyr Ala Leu Ala Leu Ala Asn Ser Ser Gln
 305 310 315 320
 Ala Asn Asp Cys Leu Asp Ser Phe Ala Ser Pro Ser Gly Cys Gly Met
 325 330 335

Leu Leu Asn Gln Pro Gln Ser Trp Ser Gly Glu Gly Val Ile Ser Asn
 340 345 350
 Pro Ala Met Cys Tyr Ser Ser Leu Ser Val Ser
 355 360

<210> 4959

<211> 359

<212> PRT

<213> Homo sapiens

<400> 4959

Met Pro Pro Thr Ser Ser Thr Pro Ser Leu Ser Arg Pro Gly Leu Gly
 1 5 10 15
 Gln Ala Gly Lys Pro Asp Thr Gly Ser His Pro Pro Pro Thr Ile Ser
 20 25 30
 Thr Ser Ile Phe Leu Ser Cys Phe Pro Thr Ile Pro Leu Ser Arg Pro
 35 40 45
 Arg Thr Thr Gly Pro Ser His Ser Tyr Gln Ser Ile Ser His Pro Arg
 50 55 60
 Ser Cys Arg Asp Val Pro Asp Asp Ile Gln Pro Ile Thr Ser Leu Pro
 65 70 75 80
 Gly Val Ala Arg Tyr Gly Val Lys Arg Leu Glu Glu Met Leu Arg Pro
 85 90 95
 Leu Val Glu Glu Gly Leu Arg Cys Val Leu Ile Phe Gly Val Pro Ser
 100 105 110
 Arg Val Pro Lys Asp Glu Arg Gly Ser Ala Ala Asp Ser Glu Glu Ser
 115 120 125
 Pro Ala Ile Glu Ala Ile His Leu Leu Arg Lys Thr Phe Pro Asn Leu
 130 135 140
 Leu Val Ala Cys Asp Val Cys Leu Cys Pro Tyr Thr Ser His Gly His
 145 150 155 160
 Cys Gly Leu Leu Ser Glu Asn Gly Ala Phe Arg Ala Glu Glu Ser Arg
 165 170 175
 Gln Arg Leu Ala Glu Val Ala Leu Ala Tyr Ala Lys Ala Gly Cys Gln
 180 185 190

Val Val Ala Pro Ser Asp Met Met Asp Gly Arg Val Glu Ala Ile Lys
 195 200 205
 Glu Ala Leu Met Ala His Gly Leu Gly Asn Arg Val Ser Val Met Ser
 210 215 220
 Tyr Ser Ala Lys Phe Ala Ser Cys Phe Tyr Gly Pro Phe Arg Asp Ala
 225 230 235 240
 Ala Lys Ser Ser Pro Ala Phe Gly Asp Arg Arg Cys Tyr Gln Leu Pro
 245 250 255
 Pro Gly Ala Arg Gly Leu Ala Leu Arg Ala Val Asp Arg Asp Val Arg
 260 265 270
 Glu Gly Ala Asp Met Leu Met Val Lys Pro Gly Met Leu Tyr Leu Asp
 275 280 285
 Ile Val Arg Glu Val Lys Asp Lys His Pro Asp Leu Pro Leu Ala Val
 290 295 300
 Tyr His Val Ser Gly Glu Phe Ala Met Leu Trp His Gly Ala Gln Ala
 305 310 315 320
 Gly Ala Phe Asp Leu Lys Ala Ala Val Leu Glu Ala Met Thr Ala Phe
 325 330 335
 Arg Arg Ala Gly Ala Asp Ile Ile Ile Thr Tyr Tyr Thr Pro Gln Leu
 340 345 350
 Leu Gln Trp Leu Lys Glu Glu
 355

<210> 4960

<211> 508

<212> PRT

<213> Homo sapiens

<400> 4960

Met Met Trp Gly Gly Gly Leu Asp Leu Cys Pro Met Pro Gly Gln Leu
 1 5 10 15
 Lys Phe Pro Pro Cys Leu Ser Arg Cys Leu Leu Trp Glu Pro Pro Ser
 20 25 30
 Leu Tyr Leu Thr Gln Pro Thr Ser Ser Leu Ala Glu Pro Gln Ala Leu
 35 40 45

Ile Cys Met Thr Ser Ser Ser Ser Gly Leu Phe Ile Gln Asp Asp Asn
 50 55 60
 Met Glu Lys Leu Glu Glu Ile Ile Glu Lys Tyr Pro Arg Ala Phe Pro
 65 70 75 80
 Phe Trp Ile Gly Pro Phe Gln Ala Phe Phe Cys Ile Tyr Asp Pro Asp
 85 90 95
 Tyr Ala Lys Thr Leu Leu Ser Arg Thr Asp Pro Lys Ser Gln Tyr Leu
 100 105 110
 Gln Lys Phe Ser Pro Pro Leu Leu Gly Lys Gly Leu Ala Ala Leu Asp
 115 120 125
 Gly Pro Lys Trp Phe Gln His Arg Arg Leu Leu Thr Pro Gly Phe His
 130 135 140
 Phe Asn Ile Leu Lys Ala Tyr Ile Glu Val Met Ala His Ser Val Lys
 145 150 155 160
 Met Met Leu Asp Lys Trp Glu Lys Ile Cys Ser Thr Gln Asp Thr Ser
 165 170 175
 Val Glu Val Tyr Glu His Ile Asn Ser Met Ser Leu Asp Ile Val Met
 180 185 190
 Lys Cys Ala Phe Ser Lys Glu Thr Asn Cys Gln Thr Asn Ser Thr His
 195 200 205
 Asp Pro Tyr Ala Lys Ala Ile Phe Glu Leu Ser Lys Ile Ile Phe His
 210 215 220
 Arg Leu Tyr Ser Leu Leu Tyr His Ser Asp Ile Ile Phe Lys Leu Ser
 225 230 235 240
 Pro Gln Gly Tyr Arg Phe Gln Lys Leu Ser Arg Val Leu Asn Gln Tyr
 245 250 255
 Thr Asp Thr Ile Ile Gln Glu Arg Lys Lys Ser Leu Gln Ala Gly Val
 260 265 270
 Lys Gln Asp Asn Thr Pro Lys Arg Lys Tyr Gln Asp Phe Leu Asp Ile
 275 280 285
 Val Leu Ser Ala Lys Asp Glu Ser Gly Ser Ser Phe Ser Asp Ile Asp
 290 295 300
 Val His Ser Glu Val Ser Thr Phe Leu Leu Ala Gly His Asp Thr Leu
 305 310 315 320
 Ala Ala Ser Ile Ser Trp Ile Leu Tyr Cys Leu Ala Leu Asn Pro Glu
 325 330 335

His Gln Glu Arg Cys Arg Glu Glu Val Arg Gly Ile Leu Gly Asp Gly
 340 345 350
 Ser Ser Ile Thr Trp Asp Gln Leu Gly Glu Met Ser Tyr Thr Thr Met
 355 360 365
 Cys Ile Lys Glu Thr Cys Arg Leu Ile Pro Ala Val Pro Ser Ile Ser
 370 375 380
 Arg Asp Leu Ser Lys Pro Leu Thr Phe Pro Asp Gly Cys Thr Leu Pro
 385 390 395 400
 Ala Gly Ile Thr Val Val Leu Ser Ile Trp Gly Leu His His Asn Pro
 405 410 415
 Ala Val Trp Lys Asn Pro Lys Val Phe Asp Pro Leu Arg Phe Ser Gln
 420 425 430
 Glu Asn Ser Asp Gln Arg His Pro Tyr Ala Tyr Leu Pro Phe Ser Ala
 435 440 445
 Gly Ser Arg Asn Cys Ile Gly Gln Glu Phe Ala Met Ile Glu Leu Lys
 450 455 460
 Val Thr Ile Ala Leu Ile Leu Leu His Phe Arg Val Thr Pro Asp Pro
 465 470 475 480
 Thr Arg Pro Leu Thr Phe Pro Asn His Phe Ile Leu Lys Pro Lys Asn
 485 490 495
 Gly Met Tyr Leu His Leu Lys Lys Leu Ser Glu Cys
 500 505

<210> 4961

<211> 1264

<212> PRT

<213> Homo sapiens

<400> 4961

Met Cys Lys Lys Leu Thr Lys Leu Ala Lys Glu Asn Asp Ser Met Lys
 1 5 10 15
 Glu Glu Leu Leu Lys Tyr Arg Ser Leu Tyr Gly Asp Leu Asp Ser Ala
 20 25 30
 Leu Ser Ala Glu Glu Leu Ala Asp Ala Pro His Ser Arg Glu Thr Glu
 35 40 45

Leu Lys Val His Leu Lys Leu Val Glu Glu Glu Ala Asn Leu Leu Ser
 50 55 60
 Arg Arg Ile Val Glu Leu Glu Val Glu Asn Arg Gly Leu Arg Ala Glu
 65 70 75 80
 Met Asp Asp Met Lys Asp His Gly Gly Gly Cys Gly Gly Pro Glu Ala
 85 90 95
 Arg Leu Ala Phe Ser Ala Leu Gly Gly Gly Glu Cys Gly Glu Ser Leu
 100 105 110
 Ala Glu Leu Arg Arg His Leu Gln Phe Val Glu Glu Glu Ala Glu Leu
 115 120 125
 Leu Arg Arg Ser Ser Ala Glu Leu Glu Asp Gln Asn Lys Leu Leu Leu
 130 135 140
 Asn Glu Leu Ala Lys Phe Arg Ser Glu His Glu Leu Asp Val Ala Leu
 145 150 155 160
 Ser Glu Asp Ser Cys Ser Val Leu Ser Glu Pro Ser Gln Glu Glu Leu
 165 170 175
 Ala Ala Ala Lys Leu Gln Ile Gly Glu Leu Ser Gly Lys Val Lys Lys
 180 185 190
 Leu Gln Tyr Glu Asn Arg Val Leu Leu Ser Asn Leu Gln Arg Cys Asp
 195 200 205
 Leu Ala Ser Cys Gln Ser Thr Arg Pro Met Leu Glu Thr Asp Ala Glu
 210 215 220
 Ala Gly Asp Ser Ala Gln Cys Val Pro Ala Pro Leu Gly Glu Thr His
 225 230 235 240
 Glu Ser His Ala Val Arg Leu Cys Arg Ala Arg Glu Ala Glu Val Leu
 245 250 255
 Pro Gly Leu Arg Glu Gln Ala Ala Leu Val Ser Lys Ala Ile Asp Val
 260 265 270
 Leu Val Ala Asp Ala Asn Gly Phe Thr Ala Gly Leu Arg Leu Cys Leu
 275 280 285
 Asp Asn Glu Cys Ala Asp Phe Arg Leu His Glu Ala Pro Asp Asn Ser
 290 295 300
 Glu Gly Pro Arg Asp Thr Lys Leu Ile His Ala Ile Leu Val Arg Leu
 305 310 315 320
 Ser Val Leu Gln Gln Glu Leu Asn Ala Phe Thr Arg Lys Ala Asp Ala
 325 330 335

Val Leu Gly Cys Ser Val Lys Glu Gln Gln Glu Ser Phe Ser Ser Leu
340 345 350
Pro Pro Leu Gly Ser Gln Gly Leu Ser Lys Glu Ile Leu Leu Ala Lys
355 360 365
Asp Leu Gly Ser Asp Phe Gln Pro Pro Asp Phe Arg Asp Leu Pro Glu
370 375 380
Trp Glu Pro Arg Ile Arg Glu Ala Phe Arg Thr Gly Asp Leu Asp Ser
385 390 395 400
Lys Pro Asp Pro Ser Arg Ser Phe Arg Pro Tyr Arg Ala Glu Asp Asn
405 410 415
Asp Ser Tyr Ala Ser Glu Ile Lys Glu Leu Gln Leu Val Leu Ala Glu
420 425 430
Ala His Asp Ser Leu Arg Gly Leu Gln Glu Gln Leu Ser Gln Glu Arg
435 440 445
Gln Leu Arg Lys Glu Glu Ala Asp Asn Phe Asn Gln Lys Met Val Gln
450 455 460
Leu Lys Glu Asp Gln Gln Arg Ala Leu Leu Arg Arg Glu Phe Glu Leu
465 470 475 480
Gln Ser Leu Ser Leu Gln Arg Arg Leu Glu Gln Lys Phe Trp Ser Gln
485 490 495
Glu Lys Asn Met Leu Val Gln Glu Ser Gln Gln Phe Lys His Asn Phe
500 505 510
Leu Leu Leu Phe Met Lys Leu Arg Trp Phe Leu Lys Arg Trp Arg Gln
515 520 525
Gly Lys Val Leu Pro Ser Glu Gly Asp Asp Phe Leu Glu Val Asn Ser
530 535 540
Met Lys Val Leu Tyr Leu Leu Met Glu Glu Glu Glu Ile Asn Ala Gln
545 550 555 560
His Ser Asp Asn Lys Ala Cys Thr Gly Asp Ser Trp Thr Gln Asn Thr
565 570 575
Pro Asn Glu Tyr Ile Lys Thr Leu Ala Asp Met Lys Val Thr Leu Lys
580 585 590
Glu Leu Cys Trp Leu Leu Arg Asp Glu Arg Arg Gly Leu Thr Glu Leu
595 600 605
Gln Gln Gln Phe Ala Lys Ala Lys Ala Thr Trp Glu Thr Glu Arg Ala
610 615 620

Glu Leu Lys Gly His Thr Ser Gln Met Glu Leu Lys Thr Gly Lys Gly
 625 630 635 640
 Ala Gly Glu Arg Ala Gly Pro Asp Trp Lys Ala Ala Leu Gln Arg Glu
 645 650 655
 Arg Glu Glu Gln Gln His Leu Leu Ala Glu Ser Tyr Ser Ala Val Met
 660 665 670
 Glu Leu Thr Arg Gln Leu Gln Ile Ser Glu Arg Asn Trp Ser Gln Glu
 675 680 685
 Lys Leu Gln Leu Val Glu Arg Leu Gln Gly Glu Lys Gln Gln Val Glu
 690 695 700
 Gln Gln Val Lys Glu Leu Gln Asn Arg Leu Ser Gln Leu Gln Lys Ala
 705 710 715 720
 Ala Asp Pro Trp Val Leu Lys His Ser Glu Leu Glu Lys Gln Asp Asn
 725 730 735
 Ser Trp Lys Glu Thr Arg Ser Glu Lys Ile His Asp Lys Glu Ala Val
 740 745 750
 Ser Glu Val Glu Leu Gly Gly Asn Gly Leu Lys Arg Thr Lys Ser Val
 755 760 765
 Ser Ser Met Ser Glu Phe Glu Ser Leu Leu Asp Cys Ser Pro Tyr Leu
 770 775 780
 Ala Gly Gly Asp Ala Arg Gly Lys Lys Leu Pro Asn Asn Pro Ala Phe
 785 790 795 800
 Gly Phe Val Ser Ser Glu Pro Gly Asp Pro Glu Lys Asp Thr Lys Glu
 805 810 815
 Lys Pro Gly Leu Ser Ser Arg Asp Cys Asn His Leu Gly Ala Leu Ala
 820 825 830
 Cys Gln Asp Pro Pro Gly Arg Gln Met Gln Arg Ser Tyr Thr Ala Pro
 835 840 845
 Asp Lys Thr Gly Ile Arg Val Tyr Tyr Ser Pro Pro Val Ala Arg Arg
 850 855 860
 Leu Gly Val Pro Val Val His Asp Lys Glu Gly Lys Ile Ile Ile Glu
 865 870 875 880
 Pro Gly Phe Leu Phe Thr Thr Ala Lys Pro Lys Glu Ser Ala Glu Ala
 885 890 895
 Asp Gly Leu Ala Glu Ser Ser Tyr Gly Arg Trp Leu Cys Asn Phe Ser
 900 905 910

Arg Gln Arg Leu Asp Gly Gly Ser Ala Gly Ser Pro Ser Ala Ala Gly
 915 920 925
 Pro Gly Phe Pro Ala Ala Leu His Asp Phe Glu Met Ser Gly Asn Met
 930 935 940
 Ser Asp Asp Met Lys Glu Ile Thr Asn Cys Val Arg Gln Ala Met Arg
 945 950 955 960
 Ser Gly Ser Leu Glu Arg Lys Val Lys Ser Thr Ser Ser Gln Thr Val
 965 970 975
 Gly Leu Ala Ser Val Gly Thr Gln Thr Ile Arg Thr Val Ser Val Gly
 980 985 990
 Leu Gln Thr Asp Pro Pro Arg Ser Ser Leu His Gly Lys Ala Trp Ser
 995 1000 1005
 Pro Arg Ser Ser Ser Leu Val Ser Val Arg Ser Lys Gln Ile Ser Ser
 1010 1015 1020
 Ser Leu Asp Lys Val His Ser Arg Ile Glu Arg Pro Cys Cys Ser Pro
 1025 1030 1035 1040
 Lys Tyr Gly Ser Pro Lys Leu Gln Arg Arg Ser Val Ser Lys Leu Asp
 1045 1050 1055
 Ser Ser Lys Asp Arg Ser Leu Trp Asn Leu His Gln Gly Lys Gln Asn
 1060 1065 1070
 Gly Ser Ala Trp Ala Arg Ser Thr Thr Thr Arg Asp Ser Pro Val Leu
 1075 1080 1085
 Arg Asn Ile Asn Asp Gly Leu Ser Ser Leu Phe Ser Val Val Glu His
 1090 1095 1100
 Ser Gly Ser Thr Glu Ser Val Trp Lys Leu Gly Met Ser Glu Thr Arg
 1105 1110 1115 1120
 Ala Lys Pro Glu Pro Pro Lys Tyr Gly Ile Val Gln Glu Phe Phe Arg
 1125 1130 1135
 Asn Ala Cys Gly Arg Ala Pro Ser Pro Thr Ser Ser Ala Gly Glu Glu
 1140 1145 1150
 Gly Thr Lys Lys Pro Glu Pro Leu Ser Pro Ala Ser Tyr His Gln Pro
 1155 1160 1165
 Glu Gly Val Ala Arg Ile Leu Asn Lys Lys Ala Ala Lys Leu Gly Ser
 1170 1175 1180
 Ser Glu Glu Val Arg Leu Thr Met Leu Pro Gln Val Gly Lys Asp Gly
 1185 1190 1195 1200

Val Leu Arg Asp Gly Asp Gly Ala Val Val Leu Pro Asn Glu Asp Ala
1205 1210 1215
Val Cys Asp Cys Ser Thr Gln Ser Leu Thr Ser Cys Phe Ala Arg Ser
1220 1225 1230
Ser Arg Ser Ala Ile Arg His Ser Pro Ser Lys Cys Arg Leu His Pro
1235 1240 1245
Ser Glu Ser Ser Trp Gly Gly Glu Glu Arg Ala Leu Pro Pro Ser Glu
1250 1255 1260

<210> 4962

<211> 633

<212> PRT

<213> Homo sapiens

<400> 4962

Met Glu Ser Gly Pro Lys Met Leu Ala Pro Val Cys Leu Val Glu Asn
1 5 10 15
Asn Asn Glu Gln Leu Leu Val Asn Gln Gln Ala Ile Gln Ile Leu Glu
20 25 30
Lys Ile Ser Gln Pro Val Val Val Val Ala Ile Val Gly Leu Tyr Arg
35 40 45
Thr Gly Lys Ser Tyr Leu Met Asn His Leu Ala Gly Gln Asn His Gly
50 55 60
Phe Pro Leu Gly Ser Thr Val Gln Ser Glu Thr Lys Gly Ile Trp Met
65 70 75 80
Trp Cys Val Pro His Pro Ser Lys Pro Asn His Thr Leu Val Leu Leu
85 90 95
Asp Thr Glu Gly Leu Gly Asp Val Glu Lys Gly Asp Pro Lys Asn Asp
100 105 110
Ser Trp Ile Phe Ala Leu Ala Val Leu Leu Cys Ser Thr Phe Val Tyr
115 120 125
Asn Ser Met Ser Thr Ile Asn His Gln Ala Leu Glu Gln Leu His Tyr
130 135 140
Val Thr Glu Leu Thr Glu Leu Ile Lys Ala Lys Ser Ser Pro Arg Pro
145 150 155 160

Asp Gly Val Glu Asp Ser Thr Glu Phe Val Ser Phe Phe Pro Asp Phe
 165 170 175
 Leu Trp Thr Val Arg Asp Phe Thr Leu Glu Leu Lys Leu Asn Gly His
 180 185 190
 Pro Ile Thr Glu Asp Glu Tyr Leu Glu Asn Ala Leu Lys Leu Ile Gln
 195 200 205
 Gly Asn Asn Pro Arg Val Gln Thr Ser Asn Phe Pro Arg Glu Cys Ile
 210 215 220
 Arg Arg Phe Phe Pro Lys Arg Lys Cys Phe Val Phe Asp Arg Pro Thr
 225 230 235 240
 Asn Asp Lys Asp Leu Leu Ala Asn Ile Glu Lys Val Ser Glu Lys Gln
 245 250 255
 Leu Asp Pro Lys Phe Gln Glu Gln Thr Asn Ile Phe Cys Ser Tyr Ile
 260 265 270
 Phe Thr His Ala Arg Thr Lys Thr Leu Arg Glu Gly Ile Thr Val Thr
 275 280 285
 Gly Asn Arg Leu Gly Thr Leu Ala Val Thr Tyr Val Glu Ala Ile Asn
 290 295 300
 Ser Gly Ala Val Pro Cys Leu Glu Asn Ala Val Ile Thr Leu Ala Gln
 305 310 315 320
 Arg Glu Asn Ser Ala Ala Val Gln Arg Ala Ala Asp Tyr Tyr Ser Gln
 325 330 335
 Gln Met Ala Gln Arg Val Lys Leu Pro Thr Asp Thr Leu Gln Glu Leu
 340 345 350
 Leu Asp Met His Ala Ala Cys Glu Arg Glu Ala Ile Ala Ile Phe Met
 355 360 365
 Glu His Ser Phe Lys Asp Glu Asn Gln Glu Phe Gln Lys Lys Phe Met
 370 375 380
 Glu Thr Thr Met Asn Lys Lys Gly Asp Phe Leu Leu Gln Asn Glu Glu
 385 390 395 400
 Ser Ser Val Gln Tyr Cys Gln Ala Lys Leu Asn Glu Leu Ser Lys Gly
 405 410 415
 Leu Met Glu Ser Ile Ser Ala Gly Ser Phe Ser Val Pro Gly Gly His
 420 425 430
 Lys Leu Tyr Met Glu Thr Lys Glu Arg Ile Glu Gln Asp Tyr Trp Gln
 435 440 445

Val Pro Arg Lys Gly Val Lys Ala Lys Glu Val Phe Gln Arg Phe Leu
 450 455 460
 Glu Ser Gln Met Val Ile Glu Glu Ser Ile Leu Gln Ser Asp Lys Ala
 465 470 475 480
 Leu Thr Asp Arg Glu Lys Ala Val Ala Val Asp Arg Ala Lys Lys Glu
 485 490 495
 Ala Ala Glu Lys Glu Gln Glu Leu Leu Lys Gln Lys Leu Gln Glu Gln
 500 505 510
 Gln Gln Gln Met Glu Ala Gln Asp Lys Ser Arg Lys Glu Asn Ile Ala
 515 520 525
 Gln Leu Lys Glu Lys Leu Gln Met Glu Arg Glu His Leu Leu Arg Glu
 530 535 540
 Gln Ile Met Met Leu Glu His Thr Gln Lys Val Gln Asn Asp Trp Leu
 545 550 555 560
 His Glu Gly Phe Lys Lys Lys Tyr Glu Glu Met Asn Ala Glu Ile Ser
 565 570 575
 Gln Phe Lys Arg Met Ile Asp Thr Thr Lys Asn Asp Asp Thr Pro Trp
 580 585 590
 Ile Ala Arg Thr Leu Asp Asn Leu Ala Asp Glu Leu Thr Ala Ile Leu
 595 600 605
 Ser Ala Pro Ala Lys Leu Ile Gly His Gly Val Lys Gly Val Ser Ser
 610 615 620
 Leu Phe Lys Lys His Lys Leu Pro Phe
 625 630

<210> 4963

<211> 779

<212> PRT

<213> Homo sapiens

<400> 4963

Met Leu Pro Cys His Ser Pro Ser Arg Ser Asp Gln Val Asn Leu Gly
 1 5 10 15
 Pro Ser Ile Asn Ser Lys Leu Leu Gly Met Ser Thr Gln Asn Tyr Ala
 20 25 30

Leu Met Gln Val Ala Gly Gln Glu Gly Thr Phe Ser Leu Val Ala Leu
 35 40 45
 Pro His Val Ala Ser Ala Gln Pro Ile Gln Lys Pro Arg Met Ser Leu
 50 55 60
 Pro Glu Asn Leu Lys Leu Pro Ile Pro Arg Tyr Gln Pro Pro Arg Asn
 65 70 75 80
 Ser Lys Ala Ser Arg Lys Lys Pro Ile Leu Ile Phe Pro Lys Ser Gly
 85 90 95
 Cys Ser Lys Ala Pro Ala Gln Thr Gln Met Cys Pro Gln Met Ser Pro
 100 105 110
 Ser Pro Pro His His Pro Glu Leu Leu Tyr Lys Pro Ser Pro Phe Glu
 115 120 125
 Glu Val Pro Ser Leu Glu Gln Ala Pro Ala Ser Ile Ser Thr Ala Ala
 130 135 140
 Leu Thr Asn Gly Ser Asp His Gly Asp Leu Arg Pro Pro Val Thr Asn
 145 150 155 160
 Thr His Gly Ser Leu Asn Pro Pro Ala Thr Pro Ala Ser Ser Thr Pro
 165 170 175
 Glu Glu Pro Ala Lys Gln Asp Leu Thr Ala Leu Ser Gly Lys Ala His
 180 185 190
 Phe Val Ser Lys Ile Thr Ser Ser Lys Pro Ser Ala Val Ala Ser Glu
 195 200 205
 Lys Phe Lys Glu Gln Val Asp Leu Ala Lys Thr Met Thr Asn Leu Ser
 210 215 220
 Pro Thr Ile Leu Gly Asn Ala Val Gln Leu Ile Ser Ser Val Pro Lys
 225 230 235 240
 Gly Lys Leu Pro Ile Pro Pro Tyr Ser Arg Met Lys Thr Met Glu Val
 245 250 255
 Tyr Lys Ile Lys Ser Asp Ala Asn Ile Ala Gly Phe Ser Leu Pro Gly
 260 265 270
 Pro Lys Ala Asp Cys Asp Lys Ile Pro Ser Thr Thr Glu Gly Phe Asn
 275 280 285
 Ala Ala Thr Lys Val Ala Ser Arg Leu Pro Val Pro Gln Val Ser Gln
 290 295 300
 Gln Ser Ala Cys Glu Ser Ala Phe Cys Pro Pro Thr Lys Leu Asp Leu
 305 310 315 320

Asn His Lys Thr Lys Leu Asn Ser Gly Ala Ala Lys Arg Lys Gly Arg			
325	330	335	
Lys Arg Lys Val Pro Asp Glu Ile Leu Ala Phe Gln Gly Lys Arg Arg			
340	345	350	
Lys Tyr Ile Ile Asn Lys Cys Arg Asp Gly Lys Glu Arg Val Lys Asn			
355	360	365	
Asp Pro Gln Glu Phe Arg Asp Gln Lys Leu Gly Thr Leu Lys Lys Tyr			
370	375	380	
Arg Ser Ile Met Pro Lys Pro Ile Met Val Ile Pro Thr Leu Ala Ser			
385	390	395	400
Leu Ala Ser Pro Thr Thr Leu Gln Ser Gln Met Leu Gly Gly Leu Gly			
405	410	415	
Gln Asp Val Leu Leu Asn Asn Ser Leu Thr Pro Lys Tyr Leu Gly Cys			
420	425	430	
Lys Gln Asp Asn Ser Ser Ser Pro Lys Pro Ser Ser Val Phe Arg Asn			
435	440	445	
Gly Phe Ser Gly Ile Lys Lys Pro Trp His Arg Cys His Val Cys Asn			
450	455	460	
His His Phe Gln Phe Lys Gln His Leu Arg Asp His Met Asn Thr His			
465	470	475	480
Thr Asn Arg Arg Pro Tyr Ser Cys Arg Ile Cys Arg Lys Ser Tyr Val			
485	490	495	
Arg Pro Gly Ser Leu Ser Thr His Met Lys Leu His His Gly Glu Asn			
500	505	510	
Arg Leu Lys Lys Leu Met Cys Cys Glu Phe Cys Ala Lys Val Phe Gly			
515	520	525	
His Ile Arg Val Tyr Phe Gly His Leu Lys Glu Val His Arg Val Val			
530	535	540	
Ile Ser Thr Glu Pro Ala Pro Ser Glu Leu Gln Pro Gly Asp Ile Pro			
545	550	555	560
Lys Asn Arg Asp Met Ser Val Arg Gly Met Glu Gly Ser Leu Glu Arg			
565	570	575	
Glu Asn Lys Ser Asn Leu Glu Glu Asp Phe Leu Leu Asn Gln Ala Asp			
580	585	590	
Glu Val Lys Leu Gln Ile Lys Cys Gly Arg Cys Gln Ile Thr Ala Gln			
595	600	605	

Ser Phe Ala Glu Ile Lys Phe His Leu Leu Gly Val His Gly Glu Glu
 610 615 620
 Ile Glu Gly Arg Leu Gln Glu Gly Thr Phe Pro Gly Ser Lys Gly Thr
 625 630 635 640
 Gln Glu Glu Leu Val Gln His Ala Ser Pro Asp Trp Lys Arg His Pro
 645 650 655
 Glu Arg Gly Lys Pro Glu Lys Val His Ser Ser Ser Glu Glu Ser His
 660 665 670
 Ala Cys Pro Arg Leu Lys Arg Gln Leu His Leu His Gln Asn Gly Val
 675 680 685
 Glu Met Leu Met Glu Asn Glu Gly Pro Gln Ser Gly Thr Asn Lys Pro
 690 695 700
 Arg Glu Thr Cys Gln Gly Pro Glu Cys Pro Gly Leu His Thr Phe Leu
 705 710 715 720
 Leu Trp Ser His Ser Gly Phe Asn Cys Leu Leu Cys Ala Glu Met Leu
 725 730 735
 Gly Arg Lys Glu Asp Leu Leu His His Trp Lys His Gln His Asn Cys
 740 745 750
 Glu Asp Pro Ser Lys Leu Trp Ala Ile Leu Asn Thr Val Ser Asn Gln
 755 760 765
 Gly Val Ile Glu Leu Ser Ser Glu Ala Glu Lys
 770 775

<210> 4964

<211> 353

<212> PRT

<213> Homo sapiens

<400> 4964

Met Glu Phe Arg Lys Thr Met Asp Ile Asp His Thr Leu Asp Trp Gln
 1 5 10 15
 Pro Pro Glu Val Ile Gln Lys Tyr Met Pro Gly Gly Leu Cys Gly Tyr
 20 25 30
 Asp Arg Asp Gly Cys Pro Val Trp Tyr Asp Ile Thr Gly Pro Leu Asp

35	40	45
Pro Lys Gly Leu Leu Phe Ser Val Thr Lys Gln Asp Leu Leu Lys Thr		
50	55	60
Lys Met Arg Asp Cys Glu Arg Ile Leu His Glu Cys Asp Leu Gln Thr		
65	70	75
Glu Arg Leu Gly Lys Lys Ile Glu Thr Ile Val Met Ile Phe Asp Cys		
85	90	95
Glu Gly Leu Gly Leu Lys His Phe Trp Lys Pro Leu Val Glu Val Tyr		
100	105	110
Gln Glu Phe Phe Gly Leu Leu Glu Glu Asn Tyr Pro Glu Thr Leu Lys		
115	120	125
Phe Met Leu Ile Val Lys Ala Thr Lys Leu Phe Pro Val Gly Tyr Asn		
130	135	140
Leu Met Lys Pro Phe Leu Ser Glu Asp Thr Arg Arg Lys Ile Ile Val		
145	150	155
Leu Gly Asn Asn Trp Lys Glu Gly Leu Leu Lys Leu Ile Ser Pro Glu		
165	170	175
Glu Leu Pro Ala Gln Phe Gly Gly Thr Leu Thr Asp Pro Asp Gly Asn		
180	185	190
Pro Lys Cys Leu Thr Lys Ile Asn Tyr Gly Gly Glu Ile Pro Lys Ser		
195	200	205
Met Tyr Val Arg Asp Gln Val Lys Thr Gln Tyr Glu His Ser Val Gln		
210	215	220
Ile Asn Arg Gly Ser Ser His Gln Val Glu Tyr Glu Ile Leu Phe Pro		
225	230	235
Gly Cys Val Leu Arg Trp Gln Phe Ser Ser Asp Gly Ala Asp Ile Gly		
245	250	255
Phe Gly Val Phe Leu Lys Thr Lys Met Gly Glu Arg Gln Arg Ala Gly		
260	265	270
Glu Met Thr Glu Val Leu Pro Ser Gln Arg Tyr Asn Ala His Met Val		
275	280	285
Pro Glu Asp Gly Asn Leu Thr Cys Ser Glu Ala Gly Val Tyr Val Glu		
290	295	300
Ser Glu Ser Gly Lys Ser Cys Cys His Leu Pro Val Ile Ile Cys Ser		
305	310	315
His Glu Leu Gln Asn Ser His Ser Asn Ser Gln Val Met Ala Tyr Gln		

325 330 335
 Met Val Arg Lys Cys Lys Leu Ser Arg Pro Leu Pro Leu Pro Ala Ser
 340 345 350
 Asn

<210> 4965

<211> 606

<212> PRT

<213> Homo sapiens

<400> 4965

Met Cys Leu Glu Lys Arg Tyr Leu Asp Val Leu Ser Asp Val Thr Gly
 1 5 10 15
 Pro Gln Val Ser Cys Tyr Ile Thr Ala Pro Ser Tyr Val Leu Gln Gln
 20 25 30
 Leu Glu Cys Arg Ile Ile Asn His Met Ser Ser Leu Ile Val Gly Asp
 35 40 45
 Asn Glu Glu Leu Val Ser Asn Val Ile Thr Ile Glu Cys Ser Asp Lys
 50 55 60
 Glu Lys Arg Val Pro Phe Pro Ile Gly Ile Ala Ile Pro Phe Thr Ala
 65 70 75 80
 Arg Tyr Arg Gly Asn Tyr Arg Asp Ile Met Val Lys Val Cys Asp Ile
 85 90 95
 Asn Leu Gln Ser Ser Tyr Leu Asn Pro Asn Ser Leu Glu Gly Met Lys
 100 105 110
 Gly Gly Tyr Lys Gly Thr Cys Ala Ser Val Lys Val Tyr Lys Leu Gly
 115 120 125
 Ile Phe Ser Val Val Ser Cys Leu Lys Lys Glu Ser Phe Thr Val Thr
 130 135 140
 Lys Lys Gly Leu Ala Leu Lys Ser Ser Met Asp Ser Arg Ile Ser Leu
 145 150 155 160
 Asn Tyr Pro Pro Gly Val Phe Thr Ser Pro Val Leu Val Gln Leu Lys
 165 170 175
 Ile Gln Pro Val Asp Pro Ala Leu Val Ala His Leu Lys Ala Gln Gln

180	185	190
Asp Thr Phe Tyr Ser Val Gln Ser Thr Ser Pro Leu Ile His Ile Gln		
195	200	205
His Pro Ser Thr Tyr Pro Phe Gln Lys Pro Val Thr Leu Phe Leu Pro		
210	215	220
Cys Ser Pro Tyr Leu Asp Lys Asn Asn Leu Gly Ser Glu Ile Asp His		
225	230	235
Lys Arg Arg Ala Ser Ala Thr Ile Asn Arg Ile Thr Pro Ser Tyr Phe		
245	250	255
Asn Arg Thr Lys Ile Ala Ser Ile Arg Lys Pro Arg Lys Asn Ala Ser		
260	265	270
Glu Cys Leu Lys Leu Leu Gly Phe Arg Ser Gln Asp Ser Gly Trp Cys		
275	280	285
Gly Leu Asp Asp Val Val Lys Thr Ile Gln Ser Gly Leu Val Ser Val		
290	295	300
Glu Leu Tyr Glu His Leu Glu Arg Phe Ile Val Leu His Leu Ser Ser		
305	310	315
Thr Met Asp Asn Ser His Leu Val Thr Phe Val Lys Ser Leu Glu Glu		
325	330	335
Ala Met Leu Ser Thr Thr Ala Cys Ile Val Leu Ser His Gln Lys Asp		
340	345	350
Asn Pro His Arg Ile Ala Val Leu Val Val Pro Ser Lys Asp Leu Ser		
355	360	365
Gln Val Leu Lys Asp Leu His Leu Glu Gly Phe Gly Gly Pro Pro Glu		
370	375	380
Pro Ser Arg His Phe Gln Val Arg Glu Gly Glu Gln Leu Leu Leu Arg		
385	390	395
Phe Thr Gly Asn Ile Phe Ala Ser Ser Asn Gly Lys Asp Tyr Gly Lys		
405	410	415
Asp Tyr Thr Leu Ile Phe His Leu Gln Arg Lys Pro Arg Leu Glu Leu		
420	425	430
Gln Ile Lys Glu Val Asp Glu Phe Gly Asn Tyr Ser Cys Pro His Tyr		
435	440	445
Lys Gly Thr Ile Val Val Tyr Lys Val Pro Lys Gly Lys Ile Val Pro		
450	455	460
Asn Leu Asn Gln Ser Leu Val Ile Asn Glu Asn His Ser Gln Leu Pro		

465 470 475 480
 Ile Cys Lys Leu Pro Leu Lys Leu Pro Lys His Lys Lys Leu Ile Asn
 485 490 495
 His Pro Gln Ser Thr Lys Arg Val Ser Lys Asp Pro Val Glu Ala Leu
 500 505 510
 Trp Asp Asn Leu Leu His Trp Leu Ala Glu Glu Leu Ser Glu Glu Asn
 515 520 525
 Ala Glu Ser Leu Ser Ser Thr Leu Pro Leu Arg Arg Ser Thr Ile Gln
 530 535 540
 Leu Ile Lys Leu Lys Asn Pro Asp Asp Leu Thr Glu Gln Ile His Glu
 545 550 555 560
 Phe Leu Cys Phe Trp Lys Lys Ser Leu Pro Thr Phe Thr Asp Lys Leu
 565 570 575
 Arg Leu Leu Ala Arg His Leu Arg Lys Ile Gly Arg Ser Asp Leu Ala
 580 585 590
 Glu Glu Leu Lys Phe Lys Trp Glu Asn Lys Val Phe Thr Glu
 595 600 605

<210> 4966

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4966

Met Ala Thr Ile Thr Met Gln Ala Tyr Ser Arg Gly Phe Leu Ala Arg
 1 5 10 15
 Arg Arg Tyr Arg Lys Met Leu Glu Glu His Lys Ala Val Ile Leu Gln
 20 25 30
 Lys Tyr Ala Arg Ala Trp Leu Ala Arg Arg Arg Phe Gln Ser Ile Arg
 35 40 45
 Arg Phe Val Leu Asn Ile Gln Leu Thr Tyr Arg Val Gln Arg Leu Gln
 50 55 60
 Lys Lys Leu Glu Asp Gln Asn Lys Glu Asn His Gly Leu Val Glu Lys
 65 70 75 80
 Leu Thr Ser Leu Ala Ala Leu Arg Ala Gly Asp Val Glu Lys Ile Gln

	85	90	95												
Lys	Leu	Glu	Ala	Glu	Leu	Glu	Lys	Ala	Ala	Thr	His	Arg	Arg	Asn	Tyr
	100							105							110
Glu	Glu	Lys	Gly	Lys	Arg	Tyr	Arg	Asp	Ala	Val	Glu	Glu	Val	Ser	Cys
	115							120							125
Gly	Arg	Val	Arg	Arg	Asp	Gly	Asn	Met	Arg	Thr	Leu	Cys	Glu	Lys	Asp
	130							135							140
Glu	Arg	Cys	Gln	Leu	Phe	Leu									
145								150							

<210> 4967

<211> 731

<212> PRT

<213> Homo sapiens

<400> 4967

Met	Met	Gln	Ala	Gln	Glu	Ser	Leu	Thr	Leu	Glu	Asp	Val	Ala	Val	Asp
1				5					10					15	
Phe	Thr	Trp	Glu	Glu	Trp	Gln	Phe	Leu	Ser	Pro	Ala	Gln	Lys	Asp	Leu
			20					25					30		
Tyr	Arg	Asp	Val	Met	Leu	Glu	Asn	Tyr	Ser	Asn	Leu	Val	Ala	Val	Gly
		35						40					45		
Tyr	Gln	Ala	Ser	Lys	Pro	Asp	Ala	Leu	Ser	Lys	Leu	Glu	Arg	Gly	Glu
	50					55						60			
Glu	Thr	Cys	Thr	Thr	Glu	Asp	Glu	Ile	Tyr	Ser	Arg	Ile	Cys	Ser	Glu
65					70				75						80
Ile	Arg	Lys	Ile	Asp	Asp	Pro	Leu	Gln	His	His	Leu	Gln	Asn	Gln	Ser
			85					90					95		
Ile	Gln	Lys	Ser	Val	Lys	Gln	Cys	His	Glu	Gln	Asn	Met	Phe	Gly	Asn
	100							105					110		
Ile	Val	Asn	Gln	Asn	Lys	Gly	His	Phe	Leu	Leu	Lys	Gln	Asp	Cys	Asp
	115							120					125		
Thr	Phe	Asp	Leu	His	Glu	Lys	Pro	Leu	Lys	Ser	Asn	Leu	Ser	Phe	Glu
	130							135					140		
Asn	Gln	Lys	Arg	Ser	Ser	Gly	Leu	Lys	Asn	Ser	Ala	Glu	Phe	Asn	Arg

145	150	155	160
Asp Gly Lys Ser Leu Phe His Ala Asn His Lys Gln Phe Tyr Thr Glu			
165	170	175	
Met Lys Phe Pro Ala Ile Ala Lys Pro Ile Asn Lys Ser Gln Phe Ile			
180	185	190	
Lys Gln Gln Arg Thr His Asn Ile Glu Asn Ala His Val Cys Ser Glu			
195	200	205	
Cys Gly Lys Ala Phe Leu Lys Leu Ser Gln Phe Ile Asp His Gln Arg			
210	215	220	
Val His Thr Gly Glu Lys Pro His Val Cys Ser Met Cys Gly Lys Ala			
225	230	235	240
Phe Ser Arg Lys Ser Arg Leu Met Asp His Gln Arg Thr His Thr Glu			
245	250	255	
Leu Lys His Tyr Glu Cys Thr Glu Cys Asp Lys Thr Phe Leu Lys Lys			
260	265	270	
Ser Gln Leu Asn Ile His Gln Lys Thr His Met Gly Gly Lys Pro Tyr			
275	280	285	
Thr Cys Ser Gln Cys Gly Lys Ala Phe Ile Lys Lys Cys Arg Leu Ile			
290	295	300	
Tyr His Gln Arg Thr His Thr Gly Glu Lys Pro His Gly Cys Ser Val			
305	310	315	320
Cys Gly Lys Ala Phe Ser Thr Lys Phe Ser Leu Thr Thr His Gln Lys			
325	330	335	
Thr His Thr Gly Glu Lys Pro Tyr Ile Cys Ser Glu Cys Gly Lys Gly			
340	345	350	
Phe Ile Glu Lys Arg Arg Leu Thr Ala His His Arg Thr His Thr Gly			
355	360	365	
Glu Lys Pro Phe Ile Cys Asn Lys Cys Gly Lys Gly Phe Thr Leu Lys			
370	375	380	
Asn Ser Leu Ile Thr His Gln Gln Thr His Thr Gly Glu Lys Leu Tyr			
385	390	395	400
Thr Cys Ser Glu Cys Gly Lys Gly Phe Ser Met Lys His Cys Leu Met			
405	410	415	
Val His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu			
420	425	430	
Cys Gly Lys Gly Phe Ala Leu Lys Ser Pro Leu Ile Arg His Gln Arg			

435	440	445
Thr His Thr Gly Glu Lys Pro Tyr Val Cys Thr Glu Cys Arg Lys Gly		
450	455	460
Phe Thr Met Lys Ser Asp Leu Ile Val His Gln Arg Thr His Thr Ala		
465	470	475
Glu Lys Pro Tyr Ile Cys Asn Asp Cys Gly Lys Gly Phe Thr Val Lys		
485	490	495
Ser Arg Leu Ile Val His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr		
500	505	510
Val Cys Gly Glu Cys Gly Lys Gly Phe Pro Ala Lys Ile Arg Leu Met		
515	520	525
Gly His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Ile Cys Asn Glu		
530	535	540
Cys Gly Lys Gly Phe Thr Glu Lys Ser His Leu Asn Val His Arg Arg		
545	550	555
Thr His Thr Gly Glu Lys Pro Tyr Val Cys Ser Glu Cys Gly Lys Asp		
565	570	575
Leu Thr Gly Lys Ser Met Leu Ile Ala His Gln Arg Thr His Thr Gly		
580	585	590
Glu Lys Pro Tyr Ile Cys Asn Glu Cys Gly Lys Gly Phe Thr Met Lys		
595	600	605
Ser Thr Leu Ser Ile His Gln Gln Thr His Thr Gly Glu Lys Pro Tyr		
610	615	620
Lys Cys Asn Glu Cys Asp Lys Thr Phe Arg Lys Lys Thr Cys Leu Ile		
625	630	635
Gln His Gln Arg Phe His Thr Gly Lys Thr Ser Phe Ala Cys Thr Glu		
645	650	655
Cys Gly Lys Phe Ser Leu Arg Lys Asn Asp Leu Ile Thr His Gln Arg		
660	665	670
Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Ser Asp Cys Gly Lys Ala		
675	680	685
Phe Thr Thr Lys Ser Gly Leu Asn Val His Gln Arg Lys His Thr Gly		
690	695	700
Glu Arg Pro Tyr Gly Cys Ser Asp Cys Gly Lys Ala Phe Ala His Leu		
705	710	715
		720

Ser Ile Leu Val Lys His Arg Arg Ile His Arg
 725 730

<210> 4968

<211> 1186

<212> PRT

<213> Homo sapiens

<400> 4968

Met Tyr Gln Ala Leu Glu Gln Gly Gly Met Thr Phe Gly Trp Val Cys
 1 5 10 15
 Trp Met Ile Leu Phe Asp Ser Ser Leu Tyr Phe Leu Cys Gly Trp Tyr
 20 25 30
 Leu Ser Asn Leu Ile Pro Gly Thr Phe Gly Leu Arg Lys Pro Trp Tyr
 35 40 45
 Phe Pro Phe Thr Ala Ser Tyr Trp Lys Ser Val Gly Phe Leu Val Glu
 50 55 60

 Lys Arg Gln Tyr Phe Leu Ser Ser Ser Leu Phe Phe Phe Asn Glu Asn
 65 70 75 80
 Phe Asp Asn Lys Gly Ser Ser Leu Gln Asn Arg Glu Gly Glu Leu Glu
 85 90 95
 Gly Ser Ala Pro Gly Val Thr Leu Val Ser Val Thr Lys Glu Tyr Glu
 100 105 110
 Gly His Lys Ala Val Val Gln Asp Leu Ser Leu Thr Phe Tyr Arg Asp
 115 120 125
 Gln Ile Thr Ala Leu Leu Gly Thr Asn Gly Ala Gly Lys Thr Thr Ile
 130 135 140
 Ile Ser Met Leu Thr Gly Leu His Pro Pro Thr Ser Gly Thr Ile Ile
 145 150 155 160
 Ile Asn Gly Lys Asn Leu Gln Thr Asp Leu Ser Arg Val Arg Met Glu
 165 170 175
 Leu Gly Val Cys Pro Gln Gln Asp Ile Leu Leu Asp Asn Leu Thr Val
 180 185 190
 Arg Glu His Leu Leu Leu Phe Ala Ser Ile Lys Ala Pro Gln Trp Thr

195	200	205
Lys Lys Glu Leu His Gln Gln Val Asn Gln Thr Leu Gln Asp Val Asp		
210	215	220
Leu Thr Gln His Gln His Lys Gln Thr Arg Ala Leu Ser Gly Gly Leu		
225	230	235
Lys Arg Lys Leu Ser Leu Gly Ile Ala Phe Met Gly Met Ser Arg Thr		
245	250	255
Val Val Leu Asp Glu Pro Thr Ser Gly Val Asp Pro Cys Ser Arg His		
260	265	270
Ser Leu Trp Asp Ile Leu Leu Lys Tyr Arg Glu Gly Arg Thr Ile Ile		
275	280	285
Phe Thr Thr His His Leu Asp Glu Ala Glu Ala Leu Ser Asp Arg Val		
290	295	300
Ala Val Leu Gln His Gly Arg Leu Arg Cys Cys Gly Pro Pro Phe Cys		
305	310	315
Leu Lys Glu Ala Tyr Gly Gln Gly Leu Arg Leu Thr Leu Thr Arg Gln		
325	330	335
Pro Ser Val Leu Glu Ala His Asp Leu Lys Asp Met Ala Cys Val Thr		
340	345	350
Ser Leu Ile Lys Ile Tyr Ile Pro Gln Ala Phe Leu Lys Asp Ser Ser		
355	360	365
Gly Ser Glu Leu Thr Tyr Thr Ile Pro Lys Asp Thr Asp Lys Ala Cys		
370	375	380
Leu Lys Gly Leu Phe Gln Ala Leu Asp Gly Asn Leu His Gln Leu His		
385	390	395
Leu Thr Gly Tyr Gly Ile Ser Asp Thr Thr Leu Glu Glu Val Phe Leu		
405	410	415
Met Leu Leu Gln Asp Ser Asn Lys Lys Ser His Ile Ala Leu Gly Thr		
420	425	430
Glu Ser Glu Leu Gln Asn His Arg Pro Thr Gly His Leu Ser Gly Tyr		
435	440	445
Cys Gly Ser Leu Ala Arg Pro Ala Thr Val Gln Gly Val Gln Leu Leu		
450	455	460
Arg Ala Gln Val Ala Ala Ile Leu Ala Arg Arg Leu Arg Arg Thr Leu		
465	470	475
Arg Ala Gly Lys Ser Thr Leu Ala Asp Leu Leu Leu Pro Val Leu Phe		

	485		490		495										
Val	Ala	Leu	Ala	Met	Gly	Leu	Phe	Met	Val	Arg	Pro	Leu	Ala	Thr	Glu
	500							505							510
Tyr	Pro	Pro	Leu	Arg	Leu	Thr	Pro	Gly	His	Tyr	Gln	Arg	Ala	Glu	Thr
	515							520							525
Tyr	Phe	Phe	Ser	Ser	Gly	Gly	Asp	Asn	Leu	Asp	Leu	Thr	Arg	Val	Leu
	530							535							540
Leu	Arg	Lys	Phe	Arg	Asp	Gln	Asp	Leu	Pro	Cys	Ala	Asp	Leu	Asn	Pro
545								550							555
Arg	Gln	Lys	Asn	Ser	Ser	Cys	Trp	Arg	Thr	Asp	Pro	Phe	Ser	His	Pro
								565							570
Glu	Phe	Gln	Asp	Ser	Cys	Gly	Cys	Leu	Lys	Arg	Pro	Asn	Arg	Ser	Ala
	580							585							590
Ser	Ala	Pro	Tyr	Leu	Thr	Asn	His	Leu	Gly	His	Thr	Leu	Leu	Asn	Leu
	595							600							605
Ser	Gly	Phe	Asn	Met	Glu	Glu	Tyr	Leu	Leu	Ala	Pro	Ser	Glu	Lys	Pro
	610							615							620
Arg	Leu	Gly	Gly	Trp	Ser	Phe	Gly	Leu	Lys	Ile	Pro	Ser	Glu	Ala	Gly
625								630							635
Gly	Ala	Asn	Gly	Asn	Ile	Ser	Lys	Pro	Pro	Thr	Leu	Ala	Lys	Val	Trp
								645							650
Tyr	Asn	Gln	Lys	Gly	Phe	His	Ser	Leu	Pro	Ser	Tyr	Leu	Asn	His	Leu
	660							665							670
Asn	Asn	Leu	Ile	Leu	Trp	Gln	His	Leu	Pro	Pro	Thr	Val	Asp	Trp	Arg
	675							680							685
Gln	Tyr	Gly	Ile	Thr	Leu	Tyr	Ser	His	Pro	Tyr	Gly	Gly	Ala	Leu	Leu
	690							695							700
Asn	Glu	Asp	Lys	Ile	Leu	Glu	Ser	Ile	Arg	Gln	Cys	Gly	Val	Ala	Leu
705								710							715
Cys	Ile	Val	Leu	Gly	Phe	Ser	Ile	Leu	Ser	Ala	Ser	Ile	Gly	Ser	Ser
								725							730
Val	Val	Arg	Asp	Arg	Val	Ile	Gly	Ala	Lys	Arg	Leu	Gln	His	Ile	Ser
	740							745							750
Gly	Leu	Gly	Tyr	Arg	Met	Tyr	Trp	Phe	Thr	Asn	Phe	Leu	Tyr	Asp	Met
	755							760							765
Leu	Phe	Tyr	Leu	Val	Ser	Val	Cys	Leu	Cys	Val	Ala	Val	Ile	Val	Ala

770	775	780
Phe Gln Leu Thr Ala	Phe Thr Phe Arg Lys Asn Leu Ala Ala Thr Ala	
785	790	795
Leu Leu Leu Ser Leu Phe Gly Tyr Ala Thr Leu Pro Trp Met Tyr Leu		800
	805	810
Met Ser Arg Ile Phe Ser Ser Ser Asp Val Ala Phe Ile Ser Tyr Val		815
	820	825
Ser Leu Asn Phe Ile Phe Gly Leu Cys Thr Met Leu Ile Thr Ile Met		830
	835	840
Pro Arg Leu Leu Ala Ile Ile Ser Lys Ala Lys Asn Leu Gln Asn Ile		845
	850	855
Tyr Asp Val Leu Lys Trp Val Phe Thr Ile Phe Pro Gln Phe Cys Leu		860
865	870	875
Gly Gln Gly Leu Val Glu Leu Cys Tyr Asn Gln Thr Lys Tyr Asp Leu		880
	885	890
Thr His Asn Phe Gly Ile Asp Ser Tyr Val Ser Pro Phe Glu Met Asn		895
	900	905
Phe Leu Gly Trp Ile Phe Val Gln Leu Ala Ser Gln Gly Thr Val Leu		910
	915	920
Leu Leu Leu Arg Val Leu Leu His Trp Asp Leu Leu Arg Trp Pro Arg		925
930	935	940
Gly His Ser Thr Leu Gln Gly Thr Val Lys Ser Ser Lys Asp Thr Asp		945
	950	955
Val Glu Lys Glu Glu Lys Arg Val Phe Glu Gly Arg Thr Asn Gly Asp		960
	965	970
Ile Leu Val Leu Tyr Asn Leu Ser Lys His Tyr Arg Arg Phe Phe Gln		975
	980	985
Asn Ile Ile Ala Val Gln Asp Ile Ser Leu Gly Ile Pro Lys Gly Glu		990
	995	1000
Cys Phe Gly Leu Leu Gly Val Asn Gly Ala Gly Lys Ser Thr Thr Phe		1005
	1010	1015
Lys Met Leu Asn Gly Glu Val Ser Leu Thr Ser Gly His Ala Ile Ile		1020
1025	1030	1035
Arg Thr Pro Met Gly Asp Ala Val Asp Leu Ser Ser Ala Gly Thr Ala		1040
	1045	1050
Gly Val Leu Ile Gly Tyr Cys Pro Gln Gln Asp Ala Leu Asp Glu Leu		1055

1060	1065	1070	
Leu Thr Gly Trp Glu His Leu Tyr Tyr Tyr Cys Ser Leu Arg Gly Ile			
1075	1080	1085	
Pro Arg Gln Cys Ile Pro Glu Val Ala Gly Asp Leu Ile Arg Arg Leu			
1090	1095	1100	
His Leu Glu Ala His Ala Asp Lys Pro Val Ala Thr Tyr Ser Gly Gly			
1105	1110	1115	1120
Thr Lys Arg Lys Leu Ser Thr Ala Leu Ala Leu Val Gly Lys Pro Asp			
1125	1130	1135	
Ile Leu Leu Leu Asp Glu Pro Ser Ser Gly Met Asp Pro Cys Ser Lys			
1140	1145	1150	
Arg Tyr Leu Trp Gln Thr Ile Met Lys Glu Val Arg Glu Gly Cys Ala			
1155	1160	1165	
Ala Val Leu Thr Ser His Arg Phe Trp Tyr Gln Asp Asp Ala Gly Leu			
1170	1175	1180	
Ile Lys			
1185			

<210> 4969

<211> 140

<212> PRT

<213> Homo sapiens

<400> 4969

Met Tyr Ile Phe Phe Phe Phe Leu Lys Gln Met Ser Phe Asp Pro Asn
1 5 10 15
Leu Leu His Asn Asn Gly His Asn Gly Tyr Pro Asn Gly Thr Ser Ala
20 25 30
Ala Leu Arg Glu Thr Gly Val Ile Glu Lys Leu Leu Thr Ser Tyr Gly
35 40 45
Phe Ile Gln Cys Ser Glu Arg Gln Ala Arg Leu Phe Phe His Cys Ser
50 55 60
Gln Tyr Asn Gly Asn Leu Gln Asp Leu Lys Val Gly Gly Asn Leu Ser
65 70 75 80
Val Leu Leu Cys Lys Asn Val Ile Thr Lys Phe Val Leu His Ile Asn

	85		90		95
Leu Phe Met Ser Val Phe Gln Lys Val Leu Cys Lys Leu Lys His Phe					
	100		105		110
Gly Leu Leu Val Val Leu Phe Ser Glu Glu Tyr Leu Tyr Lys Pro Ala					
	115		120		125
Glu Ser Leu Lys Asp Tyr Ile Cys Ile Tyr Leu Gln					
	130		135		140

<210> 4970

<211> 177

<212> PRT

<213> Homo sapiens

<400> 4970

Met Ser Ser Glu Thr Pro Thr Ser Arg Gln Leu Ser Glu Tyr Leu Lys			
1	5	10	15
His Ala Lys Gly Arg Thr Arg Thr Ala Ile Arg Asn Gly Gln Val Trp			
	20	25	30
Glu Glu Ser Leu Lys Arg Leu Arg Gln Lys Ala Ser Leu Thr Asn Val			
	35	40	45
Thr Asp Pro Ser Leu Asp Leu Thr Ser Leu Ser Leu Glu Val Gly Cys			
	50	55	60
Gly Ala Pro Ala Pro Val Val Arg Cys Asp Pro Cys Ser Pro Tyr Arg			
65	70	75	80
Thr Ile Thr Gly Asp Cys Asn Asn Arg Trp Arg Gly Leu Gly Cys Gly			
	85	90	95
Gly Arg Pro Phe Gln Pro Leu Arg Pro Ala Leu Pro Arg Pro Leu Ser			
	100	105	110
Leu Gly His Ser Arg Gln Ile Cys His Cys Leu Ala His Leu Gly Trp			
	115	120	125
Arg Ser His Leu Pro His Leu Leu Lys Ile Ala Arg Leu Gln Pro Ser			
	130	135	140
Pro Ser Ser Pro Leu Cys Val Ser Gly Ser Gly Thr Phe Pro Arg Gly			
145	150	155	160
Gly Gly Ala Pro Arg Leu Gln Gly Val Gly Ala Val Gln Arg Pro Gln			

165 170 175
 Ile

 <210> 4971
 <211> 930
 <212> PRT
 <213> Homo sapiens

 <400> 4971
 Met Ala Gly Ala Ala Ala Val Ala Ala Gly Ala Ala Ala Gly Ala
 1 5 10 15
 Ala Ala Ala Ala Val Ser Val Ala Ala Pro Gly Arg Ala Ser Ala Pro
 20 25 30
 Pro Pro Pro Pro Pro Val Tyr Cys Val Cys Arg Gln Pro Tyr Asp Val
 35 40 45
 Asn Arg Phe Met Ile Glu Cys Asp Ile Cys Lys Asp Trp Phe His Gly
 50 55 60
 Ser Cys Val Gly Val Glu Glu His His Ala Val Asp Ile Asp Leu Tyr
 65 70 75 80
 His Cys Pro Asn Cys Ala Val Leu His Gly Ser Ser Leu Met Lys Lys
 85 90 95
 Arg Arg Asn Trp His Arg His Asp Tyr Thr Glu Ile Asp Asp Gly Ser
 100 105 110
 Lys Pro Val Gln Ala Gly Thr Arg Thr Phe Ile Lys Glu Leu Arg Ser
 115 120 125
 Arg Val Phe Pro Ser Ala Asp Glu Ile Ile Ile Lys Met His Gly Ser
 130 135 140
 Gln Leu Thr Gln Arg Tyr Leu Glu Lys His Gly Phe Asp Val Pro Ile
 145 150 155 160
 Met Val Pro Lys Leu Asp Asp Leu Gly Leu Arg Leu Pro Ser Pro Thr
 165 170 175
 Phe Ser Val Met Asp Val Glu Arg Tyr Val Gly Gly Asp Lys Val Ile
 180 185 190
 Asp Val Ile Asp Val Ala Arg Gln Ala Asp Ser Lys Met Thr Leu His

195	200	205
Asn Tyr Val Lys Tyr Phe Met	Asn Pro Asn Arg Pro Lys Val Leu Asn	
210	215	220
Val Ile Ser Leu Glu Phe Ser Asp Thr Lys Met Ser Glu Leu Val Glu		
225	230	235
Val Pro Asp Ile Ala Lys Lys Leu Ser Trp Val Glu Asn Tyr Trp Pro		
245	250	255
Asp Asp Ser Val Phe Pro Lys Pro Phe Val Gln Lys Tyr Cys Leu Met		
260	265	270
Gly Val Gln Asp Ser Tyr Thr Asp Phe His Ile Asp Phe Gly Gly Thr		
275	280	285
Ser Val Trp Tyr His Val Leu Trp Gly Glu Lys Ile Phe Tyr Leu Ile		
290	295	300
Lys Pro Thr Asp Glu Asn Leu Ala Arg Tyr Glu Ser Trp Ser Ser Ser		
305	310	315
Val Thr Gln Ser Glu Val Phe Phe Gly Asp Lys Val Asp Lys Cys Tyr		
325	330	335
Lys Cys Val Val Lys Gln Gly His Thr Leu Phe Val Pro Thr Gly Trp		
340	345	350
Ile His Ala Val Leu Thr Ser Gln Asp Cys Met Ala Phe Gly Gly Asn		
355	360	365
Phe Leu His Asn Leu Asn Ile Gly Met Gln Leu Arg Cys Tyr Glu Met		
370	375	380
Glu Lys Arg Leu Lys Thr Pro Asp Leu Phe Lys Phe Pro Phe Phe Glu		
385	390	395
Ala Ile Cys Trp Phe Val Ala Lys Asn Leu Leu Glu Thr Leu Lys Glu		
405	410	415
Leu Arg Glu Asp Gly Phe Gln Pro Gln Thr Tyr Leu Val Gln Gly Val		
420	425	430
Lys Ala Leu His Thr Ala Leu Lys Leu Trp Met Lys Lys Glu Leu Val		
435	440	445
Ser Glu His Ala Phe Glu Ile Pro Asp Asn Val Arg Pro Gly His Leu		
450	455	460
Ile Lys Glu Leu Ser Lys Val Ile Arg Ala Ile Glu Glu Glu Asn Gly		
465	470	475
Lys Pro Val Lys Ser Gln Gly Ile Pro Ile Val Cys Pro Val Ser Arg		

	485		490		495
Ser Ser Asn Glu Ala Thr Ser Pro Tyr His Ser Arg Arg Lys Met Arg					
	500		505		510
Lys Leu Arg Asp His Asn Val Arg Thr Pro Ser Asn Leu Asp Ile Leu					
	515		520		525
Glu Leu His Thr Arg Glu Val Leu Lys Arg Leu Glu Met Cys Pro Trp					
	530		535		540
Glu Glu Asp Ile Leu Ser Ser Lys Leu Asn Gly Lys Phe Asn Lys His					
545		550		555	560
Leu Gln Pro Ser Ser Thr Val Pro Glu Trp Arg Ala Lys Asp Asn Asp					
	565		570		575
Leu Arg Leu Leu Leu Thr Asn Gly Arg Ile Ile Lys Asp Glu Arg Gln					
	580		585		590
Pro Phe Ala Asp Gln Ser Leu Tyr Thr Ala Asp Ser Glu Asn Glu Glu					
	595		600		605
Asp Lys Arg Arg Thr Lys Lys Ala Lys Met Lys Ile Glu Glu Ser Ser					
	610		615		620
Gly Val Glu Gly Val Glu His Glu Glu Ser Gln Lys Pro Leu Asn Gly					
625		630		635	640
Phe Phe Thr Arg Val Lys Ser Glu Leu Arg Ser Arg Ser Ser Gly Tyr					
	645		650		655
Ser Asp Ile Ser Glu Ser Glu Asp Ser Gly Pro Glu Cys Thr Ala Leu					
	660		665		670
Lys Ser Ile Phe Thr Thr Glu Glu Ser Glu Ser Ser Gly Asp Glu Lys					
	675		680		685
Lys Gln Glu Ile Thr Ser Asn Phe Lys Glu Glu Ser Asn Val Met Arg					
	690		695		700
Asn Phe Leu Gln Lys Ser Gln Lys Pro Ser Arg Ser Glu Ile Pro Ile					
705		710		715	720
Lys Arg Glu Cys Pro Thr Ser Thr Ser Thr Glu Glu Glu Ala Ile Gln					
	725		730		735
Gly Met Leu Ser Met Ala Gly Leu His Tyr Ser Thr Cys Leu Gln Arg					
	740		745		750
Gln Ile Gln Ser Thr Asp Cys Ser Gly Glu Arg Asn Ser Leu Gln Asp					
	755		760		765
Pro Ser Ser Cys His Gly Ser Asn His Glu Val Arg Gln Leu Tyr Arg					

770 775 780
 Tyr Asp Lys Pro Val Glu Cys Gly Tyr His Val Lys Thr Glu Asp Pro
 785 790 795 800
 Asp Leu Arg Thr Ser Ser Trp Ile Lys Gln Phe Asp Thr Ser Arg Phe
 805 810 815
 His Pro Gln Asp Leu Ser Arg Ser Gln Lys Cys Ile Arg Lys Glu Gly
 820 825 830
 Ser Ser Glu Ile Ser Gln Arg Val Gln Ser Arg Asn Tyr Val Asp Ser
 835 840 845
 Ser Gly Ser Ser Leu Gln Asn Gly Lys Tyr Met Gln Asn Ser Asn Leu
 850 855 860
 Thr Ser Gly Ala Cys Gln Ile Ser Asn Gly Ser Leu Ser Pro Glu Arg
 865 870 875 880
 Pro Val Gly Glu Thr Ser Phe Ser Val Pro Leu His Pro Thr Lys Arg
 885 890 895
 Pro Ala Ser Asn Pro His Leu Ser Ala Thr Arg Gln Gln Lys Val Asn
 900 905 910
 Val Gln Lys Lys Glu Trp Gln Gln Pro Asn Asn Val Leu Gly Arg Ser
 915 920 925
 Leu Ser
 930

<210> 4972

<211> 755

<212> PRT

<213> Homo sapiens

<400> 4972

Met Arg Lys Val Lys Lys Leu Arg Leu Asp Lys Glu Asn Thr Gly Ser
 1 5 10 15
 Trp Arg Ser Phe Ser Leu Asn Ser Glu Gly Ala Glu Arg Met Ala Thr
 20 25 30
 Ser Tyr Asp Phe His Ser Glu Ser Gly Leu Phe Leu Phe Gln Ala Ser
 35 40 45
 Asn Ser Leu Phe His Cys Arg Asp Gly Gly Lys Asn Gly Phe Met Val

50	55	60
Ser Pro Met Lys Pro Leu Glu Ile Lys Thr Gln Cys Ser Gly Pro Arg		
65	70	75
Met Asp Pro Lys Ile Cys Pro Ala Asp Pro Ala Phe Phe Ser Phe Ile		
85	90	95
Asn Asn Ser Asp Leu Trp Val Ala Asn Ile Glu Thr Gly Glu Glu Arg		
100	105	110
Arg Leu Thr Phe Cys His Gln Gly Leu Ser Asn Val Leu Asp Asp Pro		
115	120	125
Lys Ser Ala Gly Val Ala Thr Phe Val Ile Gln Glu Glu Phe Asp Arg		
130	135	140
Phe Thr Gly Tyr Trp Trp Cys Pro Thr Ala Ser Trp Glu Gly Ser Glu		
145	150	155
Gly Leu Lys Thr Leu Arg Ile Leu Tyr Glu Glu Val Asp Glu Ser Glu		
165	170	175
Val Glu Val Ile His Val Pro Ser Pro Ala Leu Glu Glu Arg Lys Thr		
180	185	190
Asp Ser Tyr Arg Tyr Pro Arg Thr Gly Ser Lys Asn Pro Lys Ile Ala		
195	200	205
Leu Lys Leu Ala Glu Phe Gln Thr Asp Ser Gln Gly Lys Ile Val Ser		
210	215	220
Thr Gln Glu Lys Glu Leu Val Gln Pro Phe Ser Ser Leu Phe Pro Lys		
225	230	235
Val Glu Tyr Ile Ala Arg Ala Gly Trp Thr Arg Asp Gly Lys Tyr Ala		
245	250	255
Trp Ala Met Phe Leu Asp Arg Pro Gln Gln Trp Leu Gln Leu Val Leu		
260	265	270
Leu Pro Pro Ala Leu Phe Ile Pro Ser Thr Glu Asn Glu Glu Gln Arg		
275	280	285
Leu Ala Ser Ala Arg Ala Val Pro Arg Asn Val Gln Pro Tyr Val Val		
290	295	300
Tyr Glu Glu Val Thr Asn Val Trp Ile Asn Val His Asp Ile Phe Tyr		
305	310	315
Pro Phe Pro Gln Ser Glu Gly Glu Asp Glu Leu Cys Phe Leu Arg Ala		
325	330	335

Asn Glu Cys Lys Thr Gly Phe Cys His Leu Tyr Lys Val Thr Ala Val
 340 345 350
 Leu Lys Ser Gln Gly Tyr Asp Trp Ser Glu Pro Phe Ser Pro Gly Glu
 355 360 365
 Asp Glu Phe Lys Cys Pro Ile Lys Glu Glu Ile Ala Leu Thr Ser Gly
 370 375 380
 Glu Trp Glu Val Leu Ala Arg His Gly Ser Lys Ile Trp Val Asn Glu
 385 390 395 400
 Glu Thr Lys Leu Val Tyr Phe Gln Gly Thr Lys Asp Thr Pro Leu Glu
 405 410 415
 His His Leu Tyr Val Val Ser Tyr Glu Ala Ala Gly Glu Ile Val Arg
 420 425 430
 Leu Thr Thr Pro Gly Phe Ser His Ser Cys Ser Met Ser Gln Asn Phe
 435 440 445
 Asp Met Phe Val Ser His Tyr Ser Ser Val Ser Thr Pro Pro Cys Val
 450 455 460
 His Val Tyr Lys Leu Ser Gly Pro Asp Asp Asp Pro Leu His Lys Gln
 465 470 475 480
 Pro Arg Phe Trp Ala Ser Met Met Glu Ala Ala Ser Cys Pro Pro Asp
 485 490 495
 Tyr Val Pro Pro Glu Ile Phe His Phe His Thr Arg Ser Asp Val Arg
 500 505 510
 Leu Tyr Gly Met Ile Tyr Lys Pro His Ala Leu Gln Pro Gly Lys Lys
 515 520 525
 His Pro Thr Val Leu Phe Val Tyr Gly Gly Pro Gln Val Gln Leu Val
 530 535 540
 Asn Asn Ser Phe Lys Gly Ile Lys Tyr Leu Arg Leu Asn Thr Leu Ala
 545 550 555 560
 Ser Leu Gly Tyr Ala Val Val Val Ile Asp Gly Arg Gly Ser Cys Gln
 565 570 575
 Arg Gly Leu Arg Phe Glu Gly Ala Leu Lys Asn Gln Met Gly Gln Val
 580 585 590
 Glu Ile Glu Asp Gln Val Glu Gly Pro Gln Phe Val Ala Glu Lys Tyr
 595 600 605
 Gly Phe Ile Asp Leu Ser Arg Val Ala Ile His Gly Trp Ser Tyr Gly
 610 615 620

Gly Phe Leu Ser Leu Met Gly Leu Ile His Lys Pro Gln Val Phe Lys
 625 630 635 640
 Val Ala Ile Ala Gly Ala Pro Val Thr Val Trp Met Ala Tyr Asp Thr
 645 650 655
 Gly Tyr Thr Glu Arg Tyr Met Asp Val Pro Glu Asn Asn Gln His Gly
 660 665 670
 Tyr Glu Ala Gly Ser Val Ala Leu His Val Glu Lys Leu Pro Asn Glu
 675 680 685
 Pro Asn Arg Leu Leu Ile Leu His Gly Phe Leu Asp Glu Asn Val His
 690 695 700
 Phe Phe His Thr Asn Phe Leu Val Ser Gln Leu Ile Arg Ala Gly Lys
 705 710 715 720
 Pro Tyr Gln Leu Gln Ile Tyr Pro Asn Glu Arg His Ser Ile Arg Cys
 725 730 735
 Pro Glu Ser Gly Glu His Tyr Glu Val Thr Leu Leu His Phe Leu Gln
 740 745 750
 Glu Tyr Leu
 755

<210> 4973

<211> 268

<212> PRT

<213> Homo sapiens

<400> 4973

Met Ala Ala Ala Ile Thr Asp Met Ala Asp Leu Glu Glu Leu Ser Arg
 1 5 10 15
 Leu Ser Pro Leu Pro Pro Gly Ser Pro Gly Ser Ala Ala Arg Gly Arg
 20 25 30
 Ala Glu Pro Pro Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu
 35 40 45
 Ala Glu Ala Glu Ala Val Ala Ala Leu Leu Leu Asn Gly Gly Ser Gly
 50 55 60
 Gly Gly Gly Gly Gly Gly Gly Gly Gly Val Gly Gly Gly Glu Ala Glu
 65 70 75 80

Thr Met Ser Glu Pro Ser Pro Glu Ser Ala Ser Gln Ala Gly Glu Asp
 85 90 95
 Glu Asp Glu Glu Glu Asp Asp Glu Glu Glu Glu Asp Glu Ser Ser Ser
 100 105 110
 Ser Gly Gly Gly Glu Glu Glu Ser Ser Ala Glu Ser Leu Val Gly Ser
 115 120 125
 Ser Gly Gly Ser Ser Ser Asp Glu Thr Arg Ser Leu Ser Pro Gly Ala
 130 135 140
 Ala Ser Ser Ser Ser Gly Asp Gly Asp Gly Lys Glu Gly Leu Glu Glu
 145 150 155 160
 Pro Lys Gly Pro Arg Gly Ser Gln Gly Gly Gly Gly Gly Ser Ser
 165 170 175
 Ser Ser Ser Val Val Ser Ser Gly Gly Asp Glu Gly Tyr Gly Thr Gly
 180 185 190
 Gly Gly Gly Ser Ser Ala Thr Ser Gly Gly Arg Arg Gly Ser Leu Glu
 195 200 205
 Met Ser Ser Asp Gly Glu Pro Leu Ser Arg Met Asp Ser Glu Asp Ser
 210 215 220
 Ile Ser Ser Thr Ile Met Asp Val Asp Ser Thr Ile Ser Ser Gly Arg
 225 230 235 240
 Ser Thr Pro Ala Met Met Asn Gly Gln Gly Ser Thr Thr Ser Ser Ser
 245 250 255
 Lys Asn Ile Ala Tyr Asn Cys Cys Trp Asp Gln Cys
 260 265

<210> 4974

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4974

Met Leu Gly Glu Arg Pro Leu Cys Leu Thr Pro Gly Ala Lys Leu Gly
 1 5 10 15
 Leu His His Trp Ile Ile Arg Cys Phe Gln Arg Arg Pro Ser Pro His
 20 25 30

<211> 411

<213> Homo sapiens

Met	Thr	Glu	Met	Ser	Glu	Lys	Glu	Asn	Glu	Pro	Asp	Asp	Ala	Ala	Thr
1				5					10					15	
His	Ser	Pro	Pro	Gly	Thr	Val	Ser	Ala	Leu	Gln	Glu	Thr	Lys	Leu	Gln
				20					25					30	
Arg	Phe	Lys	Arg	Ser	Leu	Ser	Leu	Lys	Thr	Ile	Leu	Arg	Ser	Lys	Ser
				35					40					45	
Leu	Glu	Asn	Phe	Phe	Leu	Arg	Ser	Gly	Ser	Glu	Leu	Lys	Cys	Pro	Thr
				50					55				60		
Glu	Val	Leu	Leu	Thr	Pro	Pro	Thr	Pro	Leu	Pro	Pro	Pro	Ser	Pro	Pro
				65					70				75		80
Pro	Thr	Ala	Ser	Asp	Arg	Gly	Leu	Ala	Thr	Pro	Ser	Pro	Ser	Pro	Cys
				85					90					95	

Pro Val Pro Arg Pro Leu Ala Ala Leu Lys Pro Val Arg Leu His Ser			
100	105	110	
Phe Gln Glu His Val Phe Lys Arg Ala Ser Pro Cys Glu Leu Cys His			
115	120	125	
Gln Leu Ile Val Gly Asn Ser Lys Gln Gly Leu Arg Cys Lys Met Cys			
130	135	140	
Lys Val Ser Val His Leu Trp Cys Ser Glu Glu Ile Ser His Gln Gln			
145	150	155	160
Cys Pro Gly Lys Thr Ser Thr Ser Phe Arg Arg Asn Phe Ser Ser Pro			
165	170	175	
Leu Leu Val His Glu Pro Pro Pro Val Cys Ala Thr Ser Lys Glu Ser			
180	185	190	
Pro Pro Thr Gly Asp Ser Gly Lys Val Asp Pro Val Tyr Glu Thr Leu			
195	200	205	
Arg Tyr Gly Thr Ser Leu Ala Leu Met Asn Arg Ser Ser Phe Ser Ser			
210	215	220	
Thr Ser Glu Ser Pro Thr Arg Ser Leu Ser Glu Arg Asp Glu Leu Thr			
225	230	235	240
Glu Asp Gly Glu Gly Ser Ile Arg Ser Ser Glu Glu Gly Pro Gly Asp			
245	250	255	
Ser Ala Ser Pro Val Phe Thr Ala Pro Ala Glu Ser Glu Gly Pro Gly			
260	265	270	
Pro Glu Glu Lys Ser Pro Gly Gln Gln Leu Pro Lys Ala Thr Leu Arg			
275	280	285	
Lys Asp Val Gly Pro Met Tyr Ser Tyr Val Ala Leu Tyr Lys Phe Leu			
290	295	300	
Pro Gln Glu Asn Asn Asp Leu Ala Leu Gln Pro Gly Asp Arg Ile Met			
305	310	315	320
Leu Val Asp Asp Ser Asn Glu Asp Trp Trp Lys Gly Lys Ile Gly Asp			
325	330	335	
Arg Val Gly Phe Phe Pro Ala Asn Phe Val Gln Arg Val Arg Pro Gly			
340	345	350	
Glu Asn Val Trp Arg Cys Cys Gln Pro Phe Ser Gly Asn Lys Glu Gln			
355	360	365	
Gly Tyr Met Ser Leu Lys Glu Asn Gln Ile Cys Val Gly Val Gly Arg			
370	375	380	

Ser Lys Asp Ala Asp Gly Phe Ile Arg Val Ser Ser Gly Lys Lys Arg
 385 390 395 400
 Gly Leu Val Pro Val Asp Ala Leu Thr Glu Ile
 405 410

<210> 4976

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4976

Met Leu Ser Ala Gly Gly Cys Ile Leu Leu Pro Val His Ile Val Cys
 1 5 10 15
 Ala Trp Asp Gly His Glu Ser Gly Gly Arg Ala Gly Val Leu Ala Leu
 20 25 30
 Gly Tyr Phe Gly Glu Thr Ile Arg Phe Lys Glu Gly Asn Thr Phe Ser
 35 40 45
 Gly Pro Val Pro Gln Asn Thr Thr Ile Thr Arg Gly Arg His Leu Ala
 50 55 60
 Glu Leu Ser Pro Thr Gly Thr Ser Gly Pro Trp Phe Leu His Pro Gln
 65 70 75 80
 Ser Ala Ser Phe His Ser Arg Gln Asn Gln Gly Ile Phe Gln Gly Gln
 85 90 95
 Val Ser His Pro Leu Gly Ala Gly Ile Leu Ser His Ser Lys Thr Asn
 100 105 110
 Phe Gln Val Pro Gly Leu Leu Gly Asn Pro Lys Arg Leu Ser Pro Ala
 115 120 125
 Glu

<210> 4977

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4977

Met Gln Thr Glu Asp Ile Arg Leu Glu Pro Asp Leu Tyr Glu Ala Cys
 1 5 10 15
 Lys Ser Asp Ile Lys Asn Phe Cys Ser Ala Val Gln Tyr Gly Asn Ala
 20 25 30
 Gln Ile Ile Glu Cys Leu Lys Glu Asn Lys Lys Gln Leu Ser Thr Arg
 35 40 45
 Cys His Gln Lys Val Phe Lys Leu Gln Glu Thr Glu Met Met Asp Pro
 50 55 60
 Glu Leu Asp Tyr Thr Leu Met Arg Val Cys Lys Gln Met Ile Lys Arg
 65 70 75 80
 Phe Cys Pro Glu Ala Asp Ser Lys Thr Met Leu Gln Cys Leu Lys Gln
 85 90 95
 Asn Lys Asn Ser Glu Leu Met Asp Pro Lys Cys Lys Gln Met Ile Thr
 100 105 110

 Lys Arg Gln Ile Thr Gln Asn Thr Gly Lys Ile Leu Ala Trp Leu Ser
 115 120 125
 Trp Pro Arg Gly Val Ser Glu Lys Glu Phe Ser Gly Cys Arg Val Thr
 130 135 140
 Cys Ser Asn Ser Gln Gly Phe Val Ala Trp Glu Phe
 145 150 155

<210> 4978

<211> 183

<212> PRT

<213> Homo sapiens

<400> 4978

Met Glu Leu Ala Ala Leu Gly Leu Ser Pro Cys Pro Arg Leu Leu His
 1 5 10 15
 Ala Glu Leu Leu Pro Gly Leu Leu Thr Val Phe Ser Leu Arg Phe Leu
 20 25 30
 Gln Asp Tyr Gly Gly Tyr Leu Ser Thr Tyr Ile Leu Pro Ala Lys Gly

35 40 45
 Glu Asn Gln Gly Gln Thr Phe Thr Cys Gly Ser Ala Leu Ser Pro Ile
 50 55 60
 Thr Asp Phe Lys Leu Tyr Ala Ser Ala Phe Ser Glu Arg Tyr Leu Gly
 65 70 75 80
 Leu His Gly Thr Arg Asp Asn Ala Val Pro Ala Ala Ala Pro Pro Pro
 85 90 95
 Gly Ala Arg Glu Thr Gly Thr Pro Arg Pro Leu Pro Gln Gly Thr Glu
 100 105 110
 Gln Arg Met Val Ala Ala Gly Pro Thr Arg Ala His Arg Thr Pro Ala
 115 120 125
 Pro Arg Phe Gln Pro Pro Ser Gly Ser Met Arg Pro Ala His Thr Ser
 130 135 140
 Leu Cys Val Pro Val Arg Asp Ile Thr Pro Cys Leu Thr Ser Gln Cys
 145 150 155 160
 His Gly Arg Ser Ser Tyr Ser Thr Ile Val Leu Ala Val Arg Val His
 165 170 175
 Ile Trp Ala Cys Tyr Phe Leu
 180

<210> 4979

<211> 579

<212> PRT

<213> Homo sapiens

<400> 4979

Met Lys Asp Lys Ser Asn Gly Leu Glu Ser Gln Val Asn Gln Cys Asp
 1 5 10 15
 Lys Met Leu Gly Gly Asp Ala Leu Val Thr Asp Leu Leu Val Asp Phe
 20 25 30
 Cys Gly Ser Arg Ser Gly Val Glu Ile Pro Arg Thr Pro Gln Leu Tyr
 35 40 45
 Val Ala His Glu Ile Gly Thr Ile Lys Thr Val Thr Pro Pro Glu Asp
 50 55 60
 Arg Asp Ser Glu Ser Gly Val Val Gly Gly Gln Gly Thr Leu Gln Glu

65	70	75	80
Pro Gly Phe Gly Glu Ala Ser Glu Ala Ile Ser Val Ser Arg Asn Arg			
	85	90	95
Gln Pro Ile Pro Leu Leu Met Asn Lys Glu Asn Ser Thr Lys Thr Ser			
	100	105	110
Lys Val Glu Leu Thr Leu Ala Ser Pro Tyr Met Lys Gln Glu Lys Glu			
	115	120	125
Glu Glu Lys Glu Gly Phe Ser Glu Ser Asp Phe Ser Asp Gly Asn Thr			
	130	135	140
Ser Ser Asn Ala Glu Ser Trp Arg Asn Pro Ser Ser Ser Glu Glu Glu			
145	150	155	160
Pro Ser Pro Val Leu Lys Thr Leu Glu Arg Ser Ala Ala Arg Lys Met			
	165	170	175
Pro Ser Lys Ser Leu Glu Asp Ile Ser Ser Asp Ser Ser Asn Gln Ala			
	180	185	190
Lys Val Asp Asn Gln Pro Glu Glu Leu Val Arg Ser Ala Glu Asp Asp			
	195	200	205
Glu Lys Pro Asp Gln Lys Pro Val Thr Asn Glu Cys Val Pro Arg Ile			
	210	215	220
Ser Thr Val Pro Thr Gln Pro Asp Asn Pro Phe Ser His Pro Asp Lys			
225	230	235	240
Leu Lys Arg Met Ser Lys Ser Val Pro Ala Phe Leu Gln Asp Glu Val			
	245	250	255
Ser Gly Ser Val Met Ser Val Tyr Ser Gly Asp Phe Gly Asn Leu Glu			
	260	265	270
Val Lys Gly Asn Ile Gln Phe Ala Ile Glu Tyr Val Glu Ser Leu Lys			
	275	280	285
Glu Leu His Val Phe Val Ala Gln Cys Lys Asp Leu Ala Ala Val Asp			
	290	295	300
Val Lys Lys Gln Arg Ser Asp Pro Tyr Val Lys Ala Tyr Leu Leu Pro			
305	310	315	320
Asp Lys Gly Lys Met Gly Lys Lys Lys Thr Leu Val Val Lys Lys Thr			
	325	330	335
Leu Asn Pro Val Tyr Asn Glu Ile Leu Arg Tyr Lys Ile Glu Lys Gln			
	340	345	350
Ile Leu Lys Thr Gln Lys Leu Asn Leu Ser Ile Trp His Arg Asp Thr			

355	360	365
Phe Lys Arg Asn Ser Phe Leu Gly Glu Val Glu Leu Asp Leu Glu Thr		
370	375	380
Trp Asp Trp Asp Asn Lys Gln Asn Lys Gln Leu Arg Trp Tyr Pro Leu		
385	390	395
Lys Arg Lys Thr Ala Pro Val Ala Leu Glu Ala Glu Asn Arg Gly Glu		
405	410	415
Met Lys Leu Ala Leu Gln Tyr Val Pro Glu Pro Val Pro Gly Lys Lys		
420	425	430
Leu Pro Thr Thr Gly Glu Val His Ile Trp Val Lys Glu Cys Leu Asp		
435	440	445
Leu Pro Leu Leu Arg Gly Ser His Leu Asn Ser Phe Val Lys Cys Thr		
450	455	460
Ile Leu Pro Asp Thr Ser Arg Lys Ser Arg Gln Lys Thr Arg Ala Val		
465	470	475
Gly Lys Thr Thr Asn Pro Ile Phe Asn His Thr Met Val Tyr Asp Gly		
485	490	495
Phe Arg Pro Glu Asp Leu Met Glu Ala Cys Val Glu Leu Thr Val Trp		
500	505	510
Asp His Tyr Lys Leu Thr Asn Gln Phe Leu Gly Gly Leu Arg Ile Gly		
515	520	525
Phe Gly Thr Gly Lys Ser Tyr Gly Thr Glu Val Asp Trp Met Asp Ser		
530	535	540
Thr Ser Glu Glu Val Ala Leu Trp Glu Lys Met Val Asn Ser Pro Asn		
545	550	555
Thr Trp Ile Glu Ala Thr Leu Pro Leu Arg Met Leu Leu Ile Ala Lys		
565	570	575
Ile Ser Lys		

<210> 4980

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4980

Met Arg Ser Leu Leu Leu Leu Ser Ala Phe Cys Leu Leu Glu Ala Ala
 1 5 10 15
 Leu Ala Ala Glu Val Lys Lys Pro Ala Ala Ala Ala Pro Gly Thr
 20 25 30
 Ala Glu Lys Leu Ser Pro Lys Ala Ala Thr Leu Ala Glu Arg Ser Ala
 35 40 45
 Gly Leu Ala Phe Ser Leu Tyr Gln Ala Met Ala Lys Asp Gln Ala Val
 50 55 60
 Glu Asn Ile Leu Val Ser Pro Val Val Val Ala Ser Ser Leu Gly Leu
 65 70 75 80
 Val Ser Leu Gly Gly Lys Ala Thr Thr Ala Ser Gln Ala Lys Ala Val
 85 90 95
 Leu Ser Ala Glu Gln Leu Arg Asp Glu Glu Val His Ala Gly Leu Gly
 100 105 110
 Glu Leu Leu Arg Ser Leu Ser Asn Ser Thr Ala Arg Asn Val Thr Trp
 115 120 125
 Lys Leu Gly Ser Arg Leu Tyr Gly Pro Ser Ser Val Ser Phe Ala Asp
 130 135 140
 Asp Phe Val Arg Ser Ser Lys Gln His Tyr Asn Cys Glu His Ser Lys
 145 150 155 160
 Ile Asn Phe Arg Asp Lys Arg Ser Ala Leu Gln Ser Ile Asn Glu Trp
 165 170 175
 Ala Ala Gln Thr Thr Asp Gly Lys Leu Pro Glu Val Thr Lys Asp Val
 180 185 190
 Glu Arg Thr Asp Gly Ala Leu Leu Val Asn Ala Met Phe Phe Lys Arg
 195 200 205
 Glu Ser Gly Ala Arg Ser Gly Val Leu Leu Leu Leu Pro Gly Pro Pro
 210 215 220
 Ala Arg Val Arg Thr Thr Phe Arg Ala Leu His Ser Ser Leu Pro Leu
 225 230 235 240
 Ile Tyr Ala Val Thr Thr Gln Gly Gly Arg Thr Val Thr Gln Leu Phe
 245 250 255
 Val Gln Thr Gly Asn
 260

<210> 4981

<211> 281

<212> PRT

<213> Homo sapiens

<400> 4981

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Met Ala Glu Ala Ala Pro Ala Arg Asp Pro Glu Thr Asp Lys His Thr
  1              5              10              15
Glu Asp Gln Ser Pro Ser Thr Pro Leu Pro Gln Pro Ala Ala Glu Lys
              20              25              30
Asn Ser Tyr Leu Tyr Ser Thr Glu Ile Thr Leu Trp Thr Val Val Ala
              35              40              45
Ala Ile Gln Ala Leu Glu Lys Lys Val Asp Ser Cys Leu Thr Arg Leu
              50              55              60
Leu Thr Leu Glu Gly Arg Thr Gly Thr Ala Glu Lys Lys Leu Ala Asp
              65              70              75              80
Cys Glu Lys Thr Ala Val Glu Phe Gly Asn Gln Leu Glu Gly Lys Trp
              85              90              95
Ala Val Leu Gly Thr Leu Leu Gln Glu Tyr Gly Leu Leu Gln Arg Arg
              100             105             110
Leu Glu Asn Val Glu Asn Leu Leu Arg Asn Arg Asn Phe Trp Ile Leu
              115             120             125
Arg Leu Pro Pro Gly Ser Lys Gly Glu Ala Pro Lys Val Pro Val Thr
              130             135             140
Phe Asp Asp Val Ala Val Tyr Phe Ser Glu Leu Glu Trp Gly Lys Leu
              145             150             155             160
Glu Asp Trp Gln Lys Glu Leu Tyr Lys His Val Met Arg Gly Asn Tyr
              165             170             175
Glu Thr Leu Val Ser Leu Asp Tyr Ala Ile Ser Lys Pro Asp Ile Leu
              180             185             190
Thr Arg Ile Glu Arg Gly Glu Glu Pro Cys Leu Asp Arg Trp Gly Gln
              195             200             205
Glu Lys Gly Asn Glu Val Glu Val Gly Arg Pro Arg Met Met Gly Thr
              210             215             220
Gly Leu Pro Pro Tyr Pro Glu His Leu Thr Ser Pro Leu Ser Pro Ala

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225 230 235 240
 Gln Glu Glu Leu Lys Glu Gly Gln Ala Pro Lys Gln Gln Gln Asp Ser
 245 250 255
 Glu Ala Arg Val Ala Pro Ala Gly Pro Glu Ala Gly Leu Ala Leu Arg
 260 265 270
 Thr Asp Leu Gln Gly Glu Ala Gln Ile
 275 280

<210> 4982

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4982

Met Ser Pro Pro Pro Leu Leu Phe Pro Gly Pro Ser His His His Val
 1 5 10 15
 Ser Pro Gly Leu Leu His Ala Pro Pro Thr Trp Ser Pro His Phe Cys
 20 25 30
 Pro Gly Arg Gly Trp Cys Val Leu His Pro Ala Thr Gln Gln Ser Glu
 35 40 45
 Gly Ser Ser Tyr Asn Ile Ser Gln Ile Thr Ser Leu Phe Ala Gln Asn
 50 55 60
 Pro Ala Met Ala Pro Ile Ser Phe Arg Val Asn Ser Lys Ala Pro Tyr
 65 70 75 80
 Leu Pro Thr Ala Pro His Ser Arg Thr Phe Pro Pro Val Val Leu Pro
 85 90 95
 Leu Val Pro Ser Ile Pro Ala Thr Gly Ile Ser Leu Leu Ala Pro Glu
 100 105 110
 Leu Thr Arg Tyr Gly Ala Ala Ser Gly Pro Leu His Leu Gln
 115 120 125

<210> 4983

<211> 266

<212> PRT

<213> Homo sapiens

<400> 4983

Met Val Met Ala Asp Gln Asn Gln Val Trp Val Gly Ser Glu Asp Ser
 1 5 10 15

 Val Ile Tyr Ile Ile Asn Val His Ser Met Ser Cys Asn Lys Gln Leu
 20 25 30
 Thr Ala His Cys Ser Ser Val Thr Asp Leu Ile Val Gln Asp Gly Gln
 35 40 45
 Glu Ala Pro Ser Asn Val Tyr Ser Cys Ser Met Asp Gly Met Val Leu
 50 55 60
 Val Trp Asn Val Ser Thr Leu Gln Val Thr Ser Arg Phe Gln Leu Pro
 65 70 75 80
 Arg Gly Gly Leu Thr Ser Ile Arg Leu His Gly Gly Arg Leu Trp Cys
 85 90 95
 Cys Thr Gly Asn Ser Ile Met Val Met Lys Met Asn Gly Ser Leu His
 100 105 110
 Gln Glu Leu Lys Ile Glu Glu Asn Phe Lys Asp Thr Ser Thr Ser Phe
 115 120 125
 Leu Ala Phe Gln Leu Leu Pro Glu Glu Glu Gln Leu Trp Ala Ala Cys
 130 135 140
 Ala Gly Arg Ser Glu Val Tyr Ile Trp Ser Leu Lys Asp Leu Ala Gln
 145 150 155 160
 Pro Pro Gln Arg Val Pro Leu Glu Asp Cys Ser Glu Ile Asn Cys Met
 165 170 175
 Ile Arg Val Lys Lys Gln Val Gly Trp Arg Ala Arg His Pro Gln His
 180 185 190
 Pro Arg Gln Val Ser Leu Ala Leu Ala Ala Ser Pro Cys Ser Arg Glu
 195 200 205
 Pro Ala Ala Arg Pro Arg Ala Leu Leu Pro Ser Pro Leu Arg Val Pro
 210 215 220
 Leu Leu Thr Gly Thr Cys Arg Val Gly Ala Asn Gly Pro Thr Gly His
 225 230 235 240
 His Val Leu Val Ser Trp Cys Gly Pro Ser Thr Pro Gln Arg Ile Pro
 245 250 255

Pro Asn Trp Met Ala Ser Asn Asp Arg Thr

260

265

<210> 4984

<211> 251

<212> PRT

<213> Homo sapiens

<400> 4984

Met Gly Met Gly Thr Leu Ala Trp Gly Gln Pro Leu Leu Pro Arg Cys
 1 5 10 15
 Leu Cys Pro Arg Ala Gly Gln Arg Gln Pro Val Val Thr Ala Ala Val
 20 25 30
 Ala Ala Pro Gln Leu Thr Met Asn Asp Phe Ser Val His Arg Ile Ile
 35 40 45
 Gly Arg Gly Gly Phe Gly Glu Val Tyr Gly Cys Arg Lys Ala Asp Thr
 50 55 60
 Gly Lys Met Tyr Ala Met Lys Cys Leu Asp Lys Lys Arg Ile Lys Met
 65 70 75 80
 Lys Gln Gly Glu Thr Leu Ala Leu Asn Glu Arg Ile Met Leu Ser Leu
 85 90 95
 Val Ser Thr Gly Asp Cys Pro Phe Ile Val Cys Met Ser Tyr Ala Phe
 100 105 110
 His Thr Pro Asp Lys Leu Ser Phe Ile Leu Asp Leu Met Asn Gly Gly
 115 120 125
 Asp Leu His Tyr His Leu Ser Gln His Gly Val Phe Ser Glu Ala Asp
 130 135 140
 Met Arg Phe Tyr Ala Ala Glu Ile Ile Leu Gly Leu Glu His Met His
 145 150 155 160
 Asn Arg Phe Val Val Tyr Arg Asp Leu Lys Val Ser Ala Pro Ala Val
 165 170 175
 Pro Arg Leu Asp Leu Arg Gly Cys Pro Leu Leu Pro Leu Asp Ile Pro
 180 185 190
 Ala Thr Arg Pro Arg Gly Val Gly Leu Leu Gly His Gly Arg Pro Val

195 200 205
 Ser Ser His Leu Arg Pro Cys Pro Ser His Arg Ala Thr Leu Trp Val
 210 215 220
 Gln Val Val Ala Gly Asp Arg Arg Glu Asp Pro His Leu Cys Pro Phe
 225 230 235 240
 Phe Gly Tyr Pro Ser Ser Ser Pro Val Lys Gln
 245 250

<210> 4985

<211> 350

<212> PRT

<213> Homo sapiens

<400> 4985

Met Met Glu Ser Ser Glu Leu Thr Pro Lys Gln Glu Ile Phe Lys Gly
 1 5 10 15
 Ser Glu Ser Ser Asn Ser Thr Ser Gly Gly Leu Phe Gly Val Val Pro
 20 25 30
 Gly Gly Thr Glu Thr Gly Asp Val Cys Glu Asp Thr Phe Lys Glu Leu
 35 40 45
 Glu Gly Gln Pro Ser Asn Glu Glu Gly Ser Arg Leu Glu Ser Asp Phe
 50 55 60
 Leu Glu Ile Ile Asp Glu Asp Lys Lys Lys Ser Thr Lys Asp Arg Tyr
 65 70 75 80
 Glu Glu Tyr Lys Glu Val Glu Glu His Pro Pro Leu Ser Ser Ser Pro
 85 90 95
 Val Glu His Glu Gly Val Leu Lys Gly Gln Lys Ser Tyr Arg Cys Asp
 100 105 110
 Glu Cys Gly Lys Ala Phe Tyr Trp Ser Ser His Leu Ile Gly His Arg
 115 120 125
 Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys
 130 135 140
 Thr Phe Arg Gln Thr Ser Gln Leu Ile Val His Leu Arg Thr His Thr
 145 150 155 160
 Gly Glu Lys Pro Tyr Glu Cys Ser Glu Cys Gly Lys Ala Tyr Arg His

	165		170		175										
Ser	Ser	His	Leu	Ile	Gln	His	Gln	Arg	Leu	His	Asn	Gly	Glu	Lys	Pro
	180						185					190			
Tyr	Lys	Cys	Asn	Glu	Cys	Ala	Lys	Ala	Phe	Asn	Gln	Ser	Ser	Lys	Leu
	195						200					205			
Phe	Asp	His	Gln	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Lys
	210					215					220				
Glu	Cys	Gly	Ala	Ala	Phe	Ser	Arg	Ser	Lys	Asn	Leu	Val	Arg	His	Gln
225						230				235				240	
Phe	Leu	His	Thr	Gly	Lys	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Arg
				245					250					255	
Ala	Phe	Cys	Ser	Asn	Arg	Asn	Leu	Ile	Asp	His	Gln	Arg	Thr	His	Thr
			260						265				270		
Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Ala	Phe	Ser	Arg
		275					280					285			
Ser	Lys	Cys	Leu	Ile	Arg	His	Gln	Ser	Leu	His	Thr	Gly	Glu	Lys	Pro
	290					295						300			
Tyr	Lys	Cys	Ser	Glu	Cys	Gly	Lys	Ala	Phe	Asn	Gln	Ile	Ser	Gln	Leu
305						310				315				320	
Val	Glu	His	Glu	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Phe	Lys	Cys	Ser
				325					330					335	
Glu	Cys	Gly	Lys	Ala	Phe	Gly	Leu	Ser	Lys	Cys	Leu	Ile	Arg		
		340							345				350		

<210> 4986

<211> 191

<212> PRT

<213> Homo sapiens

<400> 4986

Met	Tyr	Ala	Lys	Arg	Pro	Glu	Ser	Phe	Ser	Cys	Lys	Lys	Leu	Ala	Met
1				5				10					15		
Ser	Lys	Lys	Val	Thr	Pro	Ala	Ser	Thr	Gln	Cys	Val	Arg	Phe	Pro	Phe
			20					25					30		
Pro	Ser	Thr	Val	Val	Cys	Lys	Lys	Asn	Leu	Asp	Ser	Thr	Thr	Val	Ala

35	40	45
Val His Gly Glu Glu Ile Tyr Cys Lys Ser Cys Tyr Gly Lys Lys Tyr		
50	55	60
Gly Pro Lys Gly Tyr Gly Tyr Gly Gln Gly Ala Gly Thr Leu Ser Thr		
65	70	75
Asp Lys Gly Glu Ser Leu Gly Ile Lys His Glu Glu Ala Pro Gly His		
85	90	95
Arg Pro Thr Thr Asn Pro Asn Ala Ser Lys Phe Ala Gln Lys Ile Gly		
100	105	110
Gly Ser Glu Arg Cys Pro Arg Cys Ser Gln Ala Val Tyr Ala Ala Glu		
115	120	125
Lys Val Ile Gly Ala Gly Lys Ser Trp His Lys Ala Cys Phe Arg Cys		
130	135	140
Ala Lys Cys Gly Lys Gly Leu Glu Ser Thr Thr Leu Ala Asp Lys Asp		
145	150	155
Gly Glu Ile Tyr Cys Lys Gly Cys Tyr Ala Lys Asn Phe Gly Pro Lys		
165	170	175
Gly Phe Gly Phe Gly Gln Gly Ala Gly Ala Leu Val His Ser Glu		
180	185	190

<210> 4987

<211> 482

<212> PRT

<213> Homo sapiens

<400> 4987

Met Trp Thr Val Pro Ser Phe Thr Asn Asp Ser Tyr Gln Val Tyr Asn
1 5 10 15
Val Phe Ser Thr Asn Ser Phe Gln Leu Leu Thr Val Lys Arg Thr Pro
20 25 30
His Glu Ala Trp Arg Val Pro Leu Thr Thr Lys Thr Asn Lys Thr Lys
35 40 45
Gly Leu Pro Asp Cys Pro Lys Lys Pro Thr Asn Gly Pro Phe Ile Val
50 55 60
Thr Ser Ile Leu Trp Asp Asn Cys Asn Ala Pro Lys Ala Val Val Leu

65	70	75	80
Gln Thr Leu Ala Met Gly Ile Val Ile Asp Trp Ala Pro Lys Gly His			
	85	90	95
Tyr Trp Gln Asp Cys Ser Ser Lys Asn Thr Leu Cys Ser Glu Phe Ile			
	100	105	110
Tyr Ser Leu Asp Tyr Ile Glu His Gly Trp Gln Ser Tyr Thr Met Arg			
	115	120	125
Gln Arg Val Ser Pro Tyr Pro Phe Lys Trp Met Asp Thr Gly Ile Ala			
	130	135	140
Pro Pro Arg Pro Lys Ile Ile His Pro Phe Phe Thr Pro Glu His Pro			
145	150	155	160
Glu Leu Trp Lys Leu Ala Ala Ala Leu Ser Gly Ile Lys Ile Trp Asn			
	165	170	175
Thr Thr Tyr Gln Leu Leu Arg Thr Lys Thr Lys Thr Pro Thr Phe Asn			
	180	185	190
Ile Thr Leu Ile Ser Glu Trp Val Ile Pro Ile Arg Ser Cys Val Lys			
	195	200	205
Pro Pro Tyr Met Leu Leu Val Gly Asn Ile Ile Met Met Pro Asp Ala			
	210	215	220
Gln Thr Ile Glu Cys His Asn Cys Lys Leu Phe Thr Cys Ile Asp Ala			
225	230	235	240
Thr Phe Asn Pro Thr Thr Ser Ile Leu Leu Val Arg Ala Arg Glu Gly			
	245	250	255
Val Trp Ile Pro Val Ser Leu His Arg Pro Trp Glu Ser Ser Pro Ser			
	260	265	270
Ile His Ile Val Asn Glu Val Leu Lys Asp Ile Leu Lys Arg Thr Lys			
	275	280	285
Arg Phe Ile Phe Thr Leu Ile Ala Val Leu Ala Gly Leu Leu Ala Val			
	290	295	300
Thr Ala Thr Ala Ala Thr Ala Gly Val Ala Ile Arg Ser Ser Val Gln			
305	310	315	320
Thr Ala His Tyr Val Glu Ala Cys Gln Lys Asn Ser Ser Arg Leu Trp			
	325	330	335
Asn Ser Gln Ala Gln Ile Asp Gln Lys Leu Ala Asn Gln Ile Asn Asp			
	340	345	350
Leu Arg Gln Ser Val Thr Trp Leu Gly Asp Arg Val Met Asn Leu Gln			

355 360 365
 His Arg Met Gln Leu Gln Cys Asp Trp Asn Thr Ser Asp Tyr Cys Ile
 370 375 380
 Thr Pro Tyr Ala Tyr Asn Gln Asp Gln His Ser Trp Glu Asn Val Ser
 385 390 395 400
 Arg His Leu Lys Ala Trp Asp Asp Asn Leu Thr Leu Asp Ile Ser Gln
 405 410 415
 Leu Lys Glu Gln Ile Phe Glu Ala Ser Gln Val His Leu Ser Thr Val
 420 425 430
 Pro Gly Ser His Ile Phe Glu Gly Ile Thr Lys Gln Leu Pro Asp Phe
 435 440 445
 Asn Pro Phe Lys Trp Leu Lys Pro Val Arg Gly Ser Leu Leu Leu Leu
 450 455 460
 Ala Leu Leu Ile Leu Val Cys Leu Cys Cys Leu Leu Leu Val Cys Arg
 465 470 475 480
 Cys Leu

<210> 4988

<211> 465

<212> PRT

<213> Homo sapiens

<400> 4988

Met Ala Ser Val Cys Cys Leu Pro Pro Pro Arg Ala Thr Trp Ala Ser
 1 5 10 15
 Trp Thr Arg Cys Pro Gly Cys Thr Thr Cys Trp Leu Ala Pro Thr Pro
 20 25 30
 Pro Arg Cys Trp Pro Ser Pro Trp Ser Arg Gly Gly Asp Ser Trp Pro
 35 40 45
 Pro Cys Pro Arg Thr Val Pro Ser Ala Ser Gly Ala Trp Pro Pro Cys
 50 55 60
 Asn Ser Ser Gly Ala Val Arg Ser Phe Ser Leu Glu Ala Ala Glu Val
 65 70 75 80
 Leu Val Glu His Thr Cys His Arg Gly Ala Val Thr Gly Leu Thr Ala

	85		90		95										
Thr	Pro	Asp	Gly	Arg	Leu	Leu	Phe	Ser	Ser	Cys	Ser	Gln	Gly	Ser	Leu
	100							105					110		
Ala	Gln	Tyr	Ser	Cys	Ala	Asp	Pro	Gln	Trp	His	Val	Leu	Arg	Val	Ala
	115							120					125		
Ala	Asp	Met	Val	Cys	Pro	Asp	Ala	Pro	Ala	Ser	Pro	Ser	Ala	Leu	Ala
	130							135					140		
Val	Ser	Arg	Asp	Gly	Arg	Leu	Leu	Ala	Phe	Val	Gly	Pro	Ser	Arg	Cys
145						150					155				160
Thr	Val	Thr	Val	Met	Gly	Ser	Ala	Ser	Leu	Asp	Glu	Leu	Leu	Arg	Val
					165				170					175	
Asp	Ile	Gly	Thr	Leu	Asp	Leu	Ala	Ser	Ser	Arg	Leu	Asp	Ser	Ala	Met
	180							185					190		
Ala	Val	Cys	Phe	Gly	Pro	Ala	Ala	Leu	Gly	Gln	Leu	Leu	Val	Ser	Thr
	195							200					205		
Ser	Ser	Asn	Arg	Val	Val	Val	Leu	Asp	Ala	Val	Ser	Gly	Arg	Ile	Ile
	210						215					220			
Arg	Glu	Leu	Pro	Gly	Val	His	Pro	Glu	Pro	Cys	Pro	Ser	Leu	Thr	Leu
225					230					235				240	
Ser	Glu	Asp	Ala	Arg	Phe	Leu	Leu	Ile	Ala	Ala	Gly	Arg	Thr	Ile	Lys
				245						250				255	
Val	Trp	Asp	Tyr	Ala	Thr	Gln	Ala	Ser	Pro	Gly	Pro	Gln	Val	Tyr	Ile
	260							265					270		
Gly	His	Ser	Glu	Pro	Val	Gln	Ala	Val	Ala	Phe	Ser	Pro	Asp	Gln	Gln
	275							280					285		
Gln	Val	Leu	Ser	Ala	Gly	Asp	Ala	Val	Phe	Leu	Trp	Asp	Val	Leu	Ala
	290						295						300		
Thr	Thr	Glu	Ser	Asp	Gln	Ser	Phe	Pro	Gly	Ala	Pro	Pro	Ala	Cys	Lys
305						310					315			320	
Thr	Gly	Pro	Gly	Ala	Gly	Pro	Leu	Glu	Asp	Ala	Ala	Ser	Arg	Ala	Ser
				325						330				335	
Glu	Leu	Pro	Arg	Gln	Gln	Val	Pro	Lys	Pro	Cys	Gln	Ala	Ser	Pro	Pro
	340									345				350	
Arg	Leu	Gly	Val	Cys	Ala	Arg	Pro	Pro	Glu	Gly	Gly	Asp	Gly	Ala	Arg
	355									360				365	
Asp	Thr	Arg	Asn	Ser	Gly	Ala	Pro	Arg	Thr	Thr	Tyr	Leu	Ala	Ser	Cys

370 375 380
 Lys Ala Phe Thr Leu Ala Arg Val Ser Cys Ser Pro His Ser Ala Lys
 385 390 395 400
 Gly Thr Cys Pro Pro Pro Ala Ser Gly Gly Trp Leu Arg Leu Lys Ala
 405 410 415
 Val Val Gly Tyr Ser Gly Asn Gly Arg Ala Asn Met Val Trp Arg Pro
 420 425 430
 Asp Thr Gly Gly Gly Gln Glu Pro Thr Pro Thr Pro Ser Gln Asp Ala
 435 440 445
 Ala Ala Arg Gly Pro Ala Val Ser Thr Pro Arg Pro Gly Pro Gly Gly
 450 455 460
 Lys
 465

<210> 4989

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4989

Met Gly Lys Lys Gln Ser Arg Lys Thr Gly Asn Ser Lys Lys Gln Ser
 1 5 10 15
 Ala Ser Pro Pro Pro Lys Glu Cys Ser Ser Ser Pro Ala Thr Glu Gln
 20 25 30
 Ser Trp Met Glu Asn Asp Phe Asp Glu Leu Arg Glu Ala Gly Phe Arg
 35 40 45
 Arg Ser Asn Tyr Ser Glu Leu Arg Glu Asp Ile Gln Thr Lys Gly Lys
 50 55 60
 Lys Val Glu Asn Phe Glu Lys Asn Leu Glu Glu Cys Ile Thr Arg Ile
 65 70 75 80
 Thr Asn Thr Glu Lys Cys Leu Lys Glu Leu Met Glu Leu Lys Thr Lys
 85 90 95
 Ala Arg Glu Leu Arg Glu Glu Cys Arg Ser Leu Arg Ser Arg Cys Asp
 100 105 110
 Gln Leu Glu Glu Arg Val Ser Ala Met Glu Asp Glu Met Asn Glu Met

115 120 125
 Lys Gln Glu Gly Lys Val
 130

 <210> 4990
 <211> 589
 <212> PRT
 <213> Homo sapiens

 <400> 4990
 Met Asn Asn Arg Lys Glu Asp Met Glu Ile Thr Ser His Tyr Arg His
 1 5 10 15
 Leu Leu Arg Glu Leu Asn Glu Gln Arg Gln His Gly Val Leu Cys Asp
 20 25 30
 Val Cys Val Val Val Glu Gly Lys Val Phe Lys Ala His Lys Asn Val
 35 40 45
 Leu Leu Gly Ser Ser Arg Tyr Phe Lys Thr Leu Tyr Cys Gln Val Gln
 50 55 60
 Lys Thr Ser Glu Gln Ala Thr Val Thr His Leu Asp Ile Val Thr Ala
 65 70 75 80
 Gln Gly Phe Lys Ala Ile Ile Asp Phe Met Tyr Ser Ala His Leu Ala
 85 90 95
 Leu Thr Ser Arg Asn Val Ile Glu Val Met Ser Ala Ala Ser Phe Leu
 100 105 110
 Gln Met Thr Asp Ile Val Gln Ala Cys His Asp Phe Ile Lys Ala Ala
 115 120 125
 Leu Asp Ile Ser Ile Lys Ser Asp Ala Ser Asp Glu Leu Ala Glu Phe
 130 135 140
 Glu Ile Gly Ala Ser Ser Ser Ser Ser Thr Glu Ala Leu Ile Ser Ala
 145 150 155 160
 Val Met Ala Gly Arg Ser Ile Ser Pro Trp Leu Ala Arg Arg Thr Ser
 165 170 175
 Pro Ala Asp Ser Ser Gly Asp Ser Ala Ile Ala Ser Cys His Asp Gly
 180 185 190
 Gly Ser Ser Tyr Gly Lys Glu Asp Gln Glu Pro Lys Ala Asp Gly Pro

195	200	205
Asp Asp Val Ser Ser Gln Pro Leu Trp Pro Gly Asp Val Gly Tyr Gly		
210	215	220
Pro Leu Arg Ile Lys Glu Glu Gln Val Ser Pro Ser Gln Tyr Gly Gly		
225	230	235
Ser Glu Leu Pro Ser Ala Lys Asp Gly Ala Val Gln Asn Ser Phe Ser		
245	250	255
Glu Gln Ser Ala Gly Asp Ala Trp Gln Pro Thr Gly Arg Arg Lys Asn		
260	265	270
Arg Lys Asn Lys Glu Thr Val Arg His Ile Thr Gln Gln Val Glu Asp		
275	280	285
Asp Ser Arg Ala Ser Ser Pro Val Pro Ser Phe Leu Pro Thr Ser Gly		
290	295	300
Trp Pro Phe Ser Ser Arg Asp Ser Asn Ala Asp Leu Ser Val Thr Glu		
305	310	315
Ala Ser Ser Ser Asp Ser Arg Gly Glu Arg Ala Glu Leu Tyr Ala Gln		
325	330	335
Val Glu Glu Gly Leu Leu Gly Gly Glu Ala Ser Tyr Leu Gly Pro Pro		
340	345	350
Leu Thr Pro Glu Lys Asp Asp Ala Leu His Gln Ala Thr Ala Val Ala		
355	360	365
Asn Leu Arg Ala Ala Leu Met Ser Lys Asn Ser Leu Leu Ser Leu Lys		
370	375	380
Ala Asp Val Leu Gly Asp Asp Gly Ser Leu Leu Phe Glu Tyr Leu Pro		
385	390	395
Arg Gly Ala His Ser Leu Ser Leu Asn Glu Phe Thr Val Ile Arg Lys		
405	410	415
Lys Phe Lys Cys Pro Tyr Cys Ser Phe Ser Ala Met His Gln Cys Ile		
420	425	430
Leu Lys Arg His Met Arg Ser His Thr Gly Glu Arg Pro Tyr Pro Cys		
435	440	445
Glu Ile Cys Gly Lys Lys Phe Thr Arg Arg Glu His Met Lys Arg His		
450	455	460
Thr Leu Val His Ser Lys Asp Lys Lys Tyr Val Cys Lys Val Cys Ser		
465	470	475
Arg Val Phe Met Ser Ala Ala Ser Val Gly Ile Arg His Gly Ser Arg		

	485	490	495
Arg His Gly Val Cys Thr Asp Cys Ala Gly Arg Gly Met Ala Gly Pro			
500	505	510	
Leu Asp His Gly Gly Gly Gly Gly Glu Gly Ser Pro Glu Ala Leu Phe			
515	520	525	
Pro Gly Asp Gly Pro Tyr Leu Glu Asp Pro Glu Asp Pro Arg Gly Glu			
530	535	540	
Ala Glu Glu Leu Gly Glu Asp Asp Glu Gly Leu Ala Pro Glu Asp Ala			
545	550	555	560
Leu Leu Ala Asp Asp Lys Asp Glu Glu Asp Ser Pro Arg Pro Arg Ser			
565	570	575	
Pro Pro Gly Gly Pro Asp Lys Asp Phe Ala Trp Leu Ser			
580	585		

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<211> 30

<212> RNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: an artificially synthesized oligo-cap linker sequence

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<223> Description of Artificial Sequence: an artificially synthesized oligo(dT) primer sequence

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gcggctgaag acggcctatg t 21